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ABSTRACT

This occupational education plan for the mid-Hudson region of New York State (Region 3) sets forth the directions that occupational education ought to take in the next five years. Present occupational activities of the region and future occupational needs are identified. Occupational education plans consistent with the changing occupational needs in the area are outlined for each educational level. Six sections comprise the document: (I) a demographic profile of Region 3; (II) mission and goal statements of the elementary, secondary, BOCES, adult, and private post-secondary schools and community colleges constituting Region 3's educational units; (III) needs assessment and occupational education plans for each education level, including present distribution of programs in the various occupational curriculum areas and anticipated growth in manpower needs for each curriculum area by 1980, special needs of the handicapped and disadvantaged, priority objectives, and strategies to achieve the objectives; (IV) a proposed monitoring and evaluation plan for Region 3; (V) supporting documentation; and (VI) definitions of terms used throughout the report. (JDS)

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REGION 3 OCCUPATIONAL EDUCATION PLAN

1976-1981

Prepared by Region 3 under a grant to Dutchess Community College of federal funds under the Vocational Education Act Amendments of 1968 (Public Law 90-576) and administered by the New York State Education Department.

October 15, 1976

JC 770 018

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Introduction

This Occupational Education Plan for Region 3 sets forth the directions that occupational education ought to take in the next five years.

It identifies the occupational activities of the region and anticipates the need for occupational education in the immediate future. It sets forth plans to meet these needs.

The occupational needs and related issues were identified from available data and through the efforts of the three area representatives of the Region's Planning Committee.

The Planning Committee's members were as follows:

Chairman -- Donald F. Rielle, District Superintendent
Dutchess County BOCES

Community Colleges

Robert T. Brown, President, Ulster
John J. Connolly, President, Dutchess
Seymour Eskow, President, Rockland
Richard F. Grego, President, Sullivan
Joseph N. Hankin, President, Westchester
Robert T. Novak, President, Orange

BOCES

Emanual Axelrod, District Superintendent, Orange/Ulster
Joseph J. Blaney, District Superintendent, Westchester II
Rudolph J. Fobert, District Superintendent, Putnam/Westchester
Rubin Pollack, District Superintendent, Sullivan County
Justus A. Prentice, District Superintendent, Rockland County
Jack L. Roosa, District Superintendent, Ulster County

Public School Districts

Joseph P. Robitaille, Superintendent, Yonkers School District
Howard Sleight, Superintendent, Warwick School District

Public School Districts (Non-Superintendents)

Samuel Bobrow, Director of Occupational Education, Mount Vernon and New Rochelle City School Districts
Pearl Solomon, Science Coordinator, Pearl River

Private/Post Secondary Degree/Non-Degree Institutions

Wayne Berning, Registrar, Culinary Institute of America
Robert V. Maher, Director, Berkley School
Mrs. Richard Kobran, Owner, Richard I Beauty Salon

Agencies

Charles Back, Director, Dutchess County Manpower
Joan Howard, Director, Sullivan County CETA

Educational Opportunity Center

Leonard Harper, Director, Yonkers

a) How the Plan was Developed

The Planning Committee reviewed the mission and goal statements, were present at or represented at the Region 3 workshop and reviewed and acted upon draft planning proposals. The sub-committee developed data reports, draft goal and mission statements, questionnaries, and organized the June 30 workshop to examine the present and future demand for occupational education. Not only were all BOCES directors and community college deans responsible for occupational education invited to this workshop, but also all presidents of the region's school superintendent associations. A few representatives of industry, state employment agencies, conservation and county hospitals, etc. were invited also as resource people. This workshop provided the initial statements for objectives as set forth in the first draft of the plan. They were reviewed and expanded by the full Planning Committee at a meeting in late September.

The employment outlook predictions were compiled from the informed opinion of Regions 3's county planners, personnel directors in industry, state employment service personnel, and educators at the secondary and post-secondary levels (with some major responsibility for occupational education) who responded to a Region 3 planning request for such information. The New York State employment outlook 1980 was used as a guide. But it must be recognized that both Region 3's survey and the New York State data were prepared in a time of economic change and depression.

The large size of Region 3 was recognized as a major problem in developing a regional plan. The chances were that there would be both differences and similarities in the employment outlook and occupational educational needs of the various segments of the region (e.g., between Sullivan County and southern Westchester Counties.) Furthermore, it was apparent that some areas, such as Yonkers and southern Rockland County would of necessity look beyond the borders of Region 3 in making their occupational needs assessment.

b) Planning Assumptions

Region 3 created a set of PLANNING ASSUMPTIONS as follows:

1. Students served by occupational education programs will increase modestly in most of Region 3 during the next three years.

2. Occupational education will continue to expand as the need for job training and particularly retraining is felt, especially by adults, in today's era of rapid technological change.

3. The priorities of occupational education will include a new concern that adequate opportunity be available for adults to learn new occupational skills.

4. The demand for broadly based occupational education for the young will continue to override the demand for the narrower and more specific types of occupational training.

5. Occupational educational offerings will continue to be those that meet the needs of both the individual and the employer in the region.

6. The flexibility of occupational education offerings will permit students to follow varied patterns of study, to select options and to move from one level of training to another with ease.

7. Region 3, as a network of institutions of varying kinds will strive to fulfill educational missions with high quality instruction and at the same time, in an era of financial limitations, conserve resources through careful planning and use.

8. Stewart Airport will not be developed as a major jetport during the decade of the seventies.

9. VEA funding will continue at least at the present level, and with an appropriate percentage for each level of education, including the two-year college programs.

10. Data based on past growth and existing statistics is valid only as long as conditions producing such data remain constant.

11. While there may be some administrative reality to Region 3, the demography and geography of the region may produce the need for alternatives to the overall regional projects and plans.

I. PROFILE OF THE REGION[1]

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[1] This profile is taken from a study entitled: Adult Post-Secondary Continuing Education in the Mid-Hudson Region, prepared by Associated Colleges of the Mid-Hudson Area, under a grant to Marist College of federal funds under the program IMPACT of the Higher Education Act of 1965 Title I: Community Services and Continuing Education, administered by the New York State Education Department, pages 4-31.

I. Profile of the Region

"The data presented in the following chapter were derived from published available data sources such as the U.S. Bureau of the Census, the New York State Department of Commerce, County Planning Departments, etc.[1] Where necessary, such data have been mathematically transformed for greater clarity of presentation. All sources have been footnoted for further reference.

Geographical Setting:

The Mid-Hudson Region, as designated by the New York State Education Department, consists of the following seven counties:

Dutchess County
Orange County
Putnam County
Rockland County
Sullivan County
Ulster County
Westchester County

These seven counties form a broad corridor on either side of the Hudson River, beginning just above New York City and running north for about seventy miles. Bounded on the east by Connecticut and on the southwest by New Jersey and Pennsylvania, the Region forms a triangle which joins New York City to upstate New York.

The Hudson River is the central physical feature of the Region. This traditional avenue of trade and transportation continues to be a focus for travel, since both railroads and highways run along its banks. Six of the Region's twelve cities are on the Hudson and had their origin in trade along the river.

Until a few decades ago, the Mid-Hudson Region was predominately an agricultural area. However, with the gradual urbanization of areas surrounding New York City, more and more of the Region--particularly the southern half--has been developed for residential, commercial, and industrial uses.

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[1] For a more detailed data compilation see "A Statistical Summary of Selected Demographic and Economic Characteristics of the Mid-Hudson Region, covering Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester Counties" by Ms. Marque Miringoff. Available through the Associated Colleges of the Mid-Hudson Region.

Population and Population Growth

According to the 1970 Census, 1,818,778 people live in the Mid-Hudson Region. This figure represents a 57% increase since 1950, and a 27% increase since 1960. This latter figure is twice the growth rate for the United States as a whole, and three times that of New York State.

(Profile Table 1)

Selected Population Characteristics of the Mid-Hudson Region by Counties, 1970[1]

	Population 1970[1]	% Change 1960-1970[2]	% Change 1950-1970[3]	% of Region Population[3]
Dutchess County	222,295	+26.3	+55.0	12.2%
Orange County	221,657	+20.6	+ 40.7	12.2%
Putnam County	56,696	+78.7	+134.9	3.1%
Rockland County	229,903	+68.1	+121.3[4]	12.6%
Sullivan County	52,580	+16.1	+ 29.0	2.9%
Ulster County	141,241	+18.9	+ 47.2	7.8%
Westchester County	894,406	+10.6	+ 39.5	49.2%
Mid-Hudson Region	1,818,778	+27.0	+57.0	100.0%
New York State	18,241,266	+ 8.7	+ 21.9	
United States	203,235,298	+13.3	+ 32.7	

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[1] New York State Department of Commerce, Profile of People, Jobs and Housing: New York State, Business Fact Book, Part 2, 1974 Edition.

[2] U.S. Department of Commerce, Bureau of the Census, County and City Data Book, Washington, D.C.: U.S. Government Printing Office, 1972.

[3] Computations based on Reference 1 above.

Growth rates by county have been greatest in Putnam and Rockland Counties, smallest in Westchester County. This pattern indicates the northward trend of metropolitan expansion from New York City. Westchester, which makes up a full 49% of the Region's population appears to have reached a relative saturation point in population increase, as evidenced by its comparatively small increase (+11%) since 1960. Putnam and Rockland, the two counties adjacent to Westchester, have received the "spillover," resulting in a dramatic population growth - over 120% in twenty years. Dutchess and Orange Counties, immediately north of Putnam and Rockland, were next highest in growth in the last 10 years while increases in the northwestern part of the Region - Ulster and Sullivan Counties - were slightly more moderate. Even these last two counties, however, grew at a faster rate than either New York State or the nation during the years between 1950 and 1970.

Urbanization

Relative urbanization is one indication of the comparative diversity in the Mid-Hudson Region. Table 2 presents three different measures of urbanization, yet each measure illustrates the wide range of urbanization levels in the different counties of the Region.

Using the Census Bureau's definition of urban population areas (Table 2, Column A) it is clear that by 1970, Westchester and Rockland Counties were almost entirely urbanized. More than half the residents of Orange County lived in urban areas in 1970, while Dutchess, Putnam, and Ulster were rapidly approaching this level. Sullivan County in the northwestern tip of the Region remained the least urbanized of the seven counties; only 20% of its population lived in communities defined as urban by the Census Bureau.

Column B, Table 2, indicates another method of assessing urbanization; percentage of population living in cities. The drawback of this measure is that "city" is a more meaningful term historically and politically than demographically. Rockland County with its 96% urbanization as defined by the Census Bureau has no areas officially designated as cities, yet many of its towns are larger than certain cities in the Region. In terms of continuing education, however, such city designation has significance. It is only in the cities that individuals can avail themselves of public transportation to and from educational institutions. Public bus systems, for example, exist extensively only in Westchester County and in a few cities in Dutchess, Orange and Ulster. It is also in these cities where one finds the greatest clustering of institutions offering continuing education programs, so that choosing between institutions becomes a real possibility.

(Profile Table 2)

Selected Urbanization Characteristics of the Mid-Hudson Region by Counties, 1970

	A % Urban Pop.[1]	B % Pop. Liv. in Cities[2]	C Pop. per Sq. Mi. Den.[1]	Land Area[3]	% Increase in Density 1950-1970[4]
Dutchess County	42.8%	20.4%	273	813	+ 63
Orange County	51.1%	26.0%	266	833	+ 46
Putnam County	38.8%	0.0%	245	231	+182
Rockland County	96.2%	0.0%	1306	176	+158
Sullivan County	19.6%	0.0%	54	980	+ 32
Ulster County	37.5%	18.1%	124	1141	+ 53
Westchester County	93.8%	49.0%	2019	443	+ 43
Mid-Hudson Region	74.5%	31.1%	394	4617	+ 57
New York State	85.6%		380	47,831	+ 23

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[1] U.S. Department of Commerce, Bureau of the Census, County and City Data Book, Washington, D.C.: U.S. Government Printing Office. (Urban population includes all persons living in incorporated or those unincorporated communities of 2500 population or more identified by the U.S. Bureau of the Census, or in the densely settled urban fringe around cities of 50,000 inhabitants or more.

[2] Computations based on N.Y.S. Department of Commerce, Profile of People, Job and Housing: Mid-Hudson Area, Business Fact Book, Part 2, 1974 Edition and N.Y.S. Department of Commerce, Profile of People, Jobs, and Housing: Westchester-Rockland-Putnam District, Business Fact Book, Part 2, 1974 Edition. See appendix for specific city population enumeration.

[3] N.Y.S. Department of Commerce, Profile of People, Jobs, and Housing: New York State, Business Fact Book, Part 2, 1974 Edition. Includes all boundary changes made through 1970.

[4] Computations based on Reference 3, above.

A third measure of urbanization is population density (Table 2, Column C). These figures, more than any others, indicate the diversity which exists within the Mid-Hudson Region. Westchester County, with 2019 people per square mile, has almost double the density of its nearest neighbor, Rockland County. From here the figures drop off dramatically. Dutchess, Orange and Putnam Counties have much lower densities (273, 266 and 245 persons per square mile respectively); Ulster County has 124 persons per square mile and Sullivan County has only 54 persons per square mile.

These varying levels of urbanization have important implications for continuing education. In the absence of extension centers individuals in more sparsely settled areas must travel long distances in order to gain access to educational resources. Except for the small percentage of the population who live in cities and can use public transportation, most continuing educations students must get to class by automobile, a fact which may mean real hardship for persons of lesser economic means.

Racial and Ethnic Populations

The proportion of blacks in the seven-county Mid-Hudson Region in 1970 - 7% - was substantially lower than the 12% in New York State as a whole. Dutchess, Orange, Rockland, and Sullivan counties each had between 6% and 7% black population. Ulster had only 3.5% and Putnam less than 1%. Westchester County had the largest black population, both in terms of percentage (9.5%) and in terms of raw figures: 84,000 black people in Westchester County. The second largest black population was Dutchess County's 14,500. Black people formed a somewhat larger proportion of the population in the more urbanized communities, such as Poughkeepsie, Newburgh, Monticello, Nyack, Spring Valley, Tuckahoe, Mount Vernon, Elmsford, Ossining and Peekskill.

Yet, while proportions were low relative to the State, the black population in the Mid-Hudson Region increased significantly between 1960 and 1970. Rockland County's black population grew 91% in ten years, and Sullivan's increased 74%. Growth in Westchester, Dutchess, and Orange Counties ranged from 40% to 50%; Ulster's growth was 23%. Only in Putnam County did the proportion of blacks remain static during the decade. These rapidly changing proportions of black population evidenced in Rockland and Sullivan Counties are keynote features of the Region, in that they indicate substantial social change factors which should be considered when new continuing education programs

(Profile Table 3)

Selected Racial and Ethnic Characteristics of the Mid-Hudson Region, by Counties, 1970

	% Black Pop.[1]	% Change in Black Pop. 1960-1970 [2]	% Persons Spanish Heritage[2]	% Foreign Stock [1]
Dutchess County	6.5%	+46.1	0.7%	23.1%
Orange County	6.4%	+48.9	1.3%	22.8%
Putnam County	[illegible].3%	*	*	30.1%
Rockland County	5.7%	+91.1	1.7%	35.0%
Sullivan County	6.5%	+73.7	1.6%	27.0%
Ulster County	3.7%	+23.2	1.2%	21.6%
Westchester County	9.5%	+39.4	0.6%	38.4%
Mid-Hudson Region	7.4%	+44.6	0.8%	32.2%
New York State	11.9%	+52.7	4.8%	32.9%

are being developed. Specific minority problems and minority emphasis must be an integral part of new programs in those areas of the Region experiencing this kind of social change.

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[1] N.Y.S. Department of Commerce, Profile of People, Jobs and Housing: New York State, Business Fact Book, Part 2, 1974 Edition.

[2] U.S. Department of Commerce, Bureau of the Census, County and City Data Book, Washington, D.C.: U.S. Government Printing Office, 1972.

*Data not shown where population is less than 400.

Persons of Spanish heritage represented a relatively small proportion of the Region's total population - between 1% and 2% in most counties, but like the black population, proportions were considerably higher in some urban centers.[1] As with the black population, pains should be taken to consider these populations' special problems and language difficulties when formulating and planning programs.

Approximately one-third of the residents of the Mid-Hudson Region in 1970 were of foreign stock; that is, either they or their parents were born outside of the United States. This proportion, which was comparable to the State-wide figure, varied somewhat in different parts of the Region. The percentage of foreign-stock population in Dutchess, Orange and Ulster Counties ranged in the low twenties; Sullivan, Putnam, and Rockland Counties were close to the 32% average, and Westchester, with 38%, was somewhat above the average. Among foreign stock groups, Italians predominated in every county but Sullivan, and Germans represented the second largest group in every county but Rockland. The remaining major countries of origin were the United Kingdom, Ireland, and Poland. Sullivan and Rockland Counties were most atypical in their high proportion of residents from the U.S.S.R. The population clusters noted here may be of considerable significance in the future if the interest in 'ethnic studies' and ethnic identification continues as it has in recent years.

Age Characteristics

In 5 of the Region's 7 counties, the median age in 1970 was slightly under the State-wide figure of 30.8. Rockland, Ulster, Putnam, Dutchess and Orange all had medians between 27 and 29. Offsetting these were Sullivan County with a median of 32.7 and Westchester with a median of 33.1. These figures are consonant with the Census Bureau findings which indicate that, within the Region, Putnam and Rockland had the highest proportion of residents under 14, Ulster and Orange had the most between 15 and 24, while Sullivan and Westchester exceeded the other counties in proportion of residents over 45.[2]

The age distribution presented in Table 4 suggests an inverse relationship between median age and population increase 1960-1970 (see Table 5); the greater the population increase, the lower the median age. Thus, Westchester and Sullivan, which had the two highest median ages, had the smallest increase in population. Putnam and Rockland, on the other had, which had the two lowest median ages, had the two highest rates of population increase.

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[1] Beacon and Newburgh are examples.

[2] N.Y.S. Department of Commerce, Profile of People, Jobs and Housing: New York State, Business Fact Book, Part 2, 1974 Edition.

(Profile Table 4)

Age Characteristics of the Mid-Hudson Region by County, 1970[1]

	Median Age	% of Population							
		Under 5	5-14	15-24	25-34	35-44	45-54	55-64	65 and over
Dutchess County	29.0	8.7	20.2	15.3	13.9	12.4	10.5	8.8	10.1
Orange County	28.5	8.8	20.3	16.4	12.2	11.3	10.8	9.4	10.8
Putnam County	27.5	10.2	23.7	12.5	14.4	12.8	9.7	8.0	8.8
Rockland County	27.1	9.3	24.3	13.8	12.9	15.1	10.8	6.8	7.0
Sullivan County	32.6	7.5	18.2	15.7	11.0	10.9	12.1	11.4	13.1
Ulster County	29.0	8.3	19.8	16.8	12.2	11.6	10.5	9.2	11.7
Westchester County	32.9	7.4	18.6	14.8	11.7	12.7	13.1	11.2	10.6

A similar pattern emerges when one considers the proportion of each County's population between 18 and 65 years old in 1970. The smaller a County's population increase 1960-70, the greater its proportion of people between 18 and 65. Westchester, for example, with the lowest rate of population increase in the Region, had the highest proportion of people between 18 and 65.

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[1] N.Y.S. Department of Commerce, Profile of People, Jobs and Housing: New York State, Business Fact Book, Part 2, 1974 Edition.

(Profile **Table 5**)

Rank Order of Median Age and % of Population Between 18 and 65 and % Increase in Population by County

County	Median Age 1970[1]	% Pop 18-65[2]	% Increase in Pop. 1960-1970[2]
Westchester County	32.9	58.0	+10.6
Sullivan County	32.6	55.7	+16.1
Ulster County	29.0	55.0	+18.9
Dutchess County	29.0	56.1	+26.3
Orange County	28.5	54.8	+20.6
Putnam County	28.5	52.0	+78.7
Rockland County	27.1	53.7	+68.1

Putnam and Rockland, on the other hand, had the highest population increases, yet they had the lowest proportion of residents over 18 years old. Thus, populations which experienced less over-all growth may have a greater proportion of potential continuing education students, since they seem to have a larger percentage of residents over 18. Looking to the areas of greatest current growth, therefore, may not be the most productive way of identifying areas with the greatest need for continuing education opportunities.

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[1] N.Y.S. Department of Commerce, Profile of People, Jobs and Housing: New York State, Business Fact Book, Part 2, 1974 Edition.

[2] Computations based on data in Reference 1, above.

Income

Income variations between the seven counties of the Mid-Hudson Region again highlight the significant diversity of this area. Though, in 1969, the median family income in all counties but Sullivan was above the national median of $9,590, three of the seven counties - Sullivan, Ulster and Orange - fell below the New York State median income of $10,617. The range of median income variation is extensive: Sullivan with a median family income of $8,893 was almost a full $5,000 below Westchester County's median of $13,784. This variation between income levels is further suggested by the 1969 Census Bureau's ranking of U.S. Counties according to median family income: Westchester ranked 13th highest in the country, Sullivan ranked 665th. Westchester's significantly higher economic status is also evidenced by the fact that, although it has 49% of the Region's population, its residents received 64% of the total personal per capita income of the region.[1]

Incomes also varied widely within individual counties. In 1969, about 5% of the families in most counties earned less than $3,000 per year; in Ulster and Sullivan, the number was closer to 10%. Even in Westchester, where 17% of the families had annual incomes over $25,000, another 16% (or 37,000 families) earned less than $7,000 per year. This variation is most noticeable when analyzed by race. Each county's black median family income was substantially lower than the white median family income. This variation ranged between a low of $2,167 in Sullivan County, where all incomes were relatively low, to a high of $5,675 variation between races in Westchester County.

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[1] Computations based on N.Y. State Department of Commerce, New York State Business Fact Book, 1973 Supplement.

(Profile Table 6)

Family Income Characteristics of the Mid-Hudson Region, by County, 1969[1]

	Median Family Income	Median Family Income[2] (Whites)	Median Family Income[2] (Blacks)	% With $0-6999	% With $7000-14999	% With $15000-24,999	% With 25000 and over	U.S. Media Famil Incom Rank[2]
Dutchess	11,662	11,761	8,798	19.6	49.9	24.9	5.5	74
Orange	10,130	10,259	7,336	27.5	52.4	16.5	3.8	268
Putnam	11,996	11,986	*	17.6	52.1	25.2	5.2	55
Rockland	13,753	13,972	9,463	13.7	43.7	32.0	10.5	14
Sullivan	8,893	9,005	6,838	36.3	47.7	12.6	3.4	665
Ulster	9,813	9,873	7,493	30.2	49.4	17.0	3.3	340
Westchester	13,784	14,302	8,627	16.1	39.8	26.9	17.3	13
N.Y. State	10,617	11,026	7,292	27.1	46.4	19.7	6.8	--

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[1] N.Y.S. Department of Commerce, _Profile of People, Jobs and Housing: New York State_, Business Fact Book, Part 2, 1974 Edition. Families are groups of two or more persons related by blood, marriage or adoption, living in the same household. Family income is the sum of income received by all family members 14 years old and over. Although the money income figures refer to receipts covering the calendar year 1969, the characteristics of persons and the composition of families and for white and Negro families, median income is based on the distribution of the total number of families in each of the groups, including those with no income.

(Continued next page)

Labor Force

General Characteristics, 1970: In 1970 there were 734,199 people in the Mid-Hudson Region civilian labor force, of whom 38% were women. Members of the labor force represented 58% of all persons within the Region 16 years or older, and 41% of all women over 16. These proportions of women in the labor force indicate that in developing ... education curricula, one must consider both the current career patterns and future occupational goals of a large proportion of women as well as most men.

Unemployment: As of 1975, the Mid-Hudson Region's labor force had added an additional 30,000 persons, making a total civilian labor force of 763,600. However, reflecting the general economic recession in the country as a whole, the unemployment rate for the Region had also climbed steadily upward reaching 9.1% in August of 1975.

Ulster County's unemployment rate was the highest at 10.8%, more than double its 1970 rate. Westchester, Rockland and Putnam County's rates were also high (between 9.2% and 9.8%), and represented an almost fourfold increase over 1970. Dutchess had the lowest rate (6.1%), but even this was more than twice the 1970 figure.....

Occupational Groups: The occupational distribution by county again highlights both regional patterns and regional diversity. The white collar professions taken together - Professional and Technical, Managers and Administrators, and Clerical and Sales account for 58% of the Region's total labor force. The remaining blue-collar occupations thus account for only 42% of the Region. However, these patterns vary significantly by County.

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[1] See Volume Two, Section 5.

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[2] (Continued from previous page) U.S. Department of Commerce, Bureau of Census, County and City Data Book, Washington, D.C.: 1972.

*Total number of Counties is 3,141. Income rankings were assigned by the Bureau of the Census on the basis of median family income size, with each area placed in descending order, greatest to smallest. Where ties occurred - two or more areas with identical median incomes - the same rank was assigned to the tied areas.

(Profile Table 7)

Labor Force Characteristics of the Mid-Hudson Region, by County, 1970

	Population 16 yrs. and over[1]	% of Pop. 16+ in Civilian Labor Force[1*]	Women 16 yrs. and over[2]	% Women 16+ Civilian Labor Force[3*]	% of Civilian Labor Force Which are Women 16+[3*]
Dutchess	154,166	55.1	79,414	39.2	36.6
Orange	153,018	54.3	78,438	40.4	38.2
Putnam	36,364	55.2	18,748	35.6	32.3
Rockland	147,817	58.6	77,719	40.5	36.4
Sullivan	38,086	55.3	18,705	40.0	35.5
Ulster	99,133	55.3	51,468	39.0	36.6
Westchester	645,171	59.4	349,075	42.8	39.0
Region	1,273,755	57.6	673,567	41.2	37.8

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[1] N.Y.S. Department of Commerce, Profile of People, Jobs and Housing: New York State, Business Fact Book, Part 2, 1974 Edition.

[2] U.S. Department of Commerce, General Social and Economic Characteristics: New York State, 1970 Census of Population, Washington, D.C.: U.S. Government Printing Office, May 1972.

[3] Computed from Reference 2 above.

*Civilian labor force includes all persons (except members of the Armed Services) 16 years old and over who were either employed or unemployed (but available for work) during the reference week.

(Profile Table 8)

Unemployment and Employment in the Mid-Hudson Region, by County, 1975[1]

	# in Civilian Labor Force	Number Unemployed	1975 Unemployment Rate	1970 Unemployment Rate
Dutchess	97,600	6,000	6.1	2.7
Orange	106,600	8,900	8.3	3.7
Putnam	19,300	1,900	9.7	2.6
Rockland	80,500	7,400	9.2	2.4
Sullivan[2]	35,600	2,800	7.8	5.3
Ulster	66,100	7,100	10.8	4.4
Westchester	357,900	35,100	9.8	2.6
Region	763,600	69,200	9.1	3.0

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[1] N.Y.S. Department of Labor, Number of Persons in Civilian Labor Force, Employed and Unemployed, and Rate of Unemployment by Place of Residence, August, 1975. Civilian Labor Force includes all persons (except members of the Armed Services) 16 years old and over who were either employed or unemployed (but available for work) during the reference week.

[2] Sullivan County's unemployment rate is lowest during the summer months when these figures were recorded. It is substantially higher during the winter.

(Profile Table 9)

... Occupation Groups of the Mid-Hudson Region by Counties, 1970[1]

	Professional, Technical	Farmers, Farm Managers	Managers, Administrators (exc.Farm)	Clerical and Sales	Craftsmen, Foremen	Service Wrkrs (pvt. hsehld. & other)	Laborers (In Farm Foremen
Dutchess	24.8	.9	7.6	21.8	25.2	15.3	4.4
Orange	14.7	1.3	8.9	22.5	33.4	14.0	5.2
Putnam	19.6	.3	9.6	25.0	29.4	11.4	4.7
Rockland	21.2	.1	11.2	27.3	23.4	13.8	2.9
Sullivan	13.5	2.0	9.7	20.7	26.0	21.9	6.2
Ulster	19.6	1.0	8.9	22.0	30.6	12.7	5.2
Westchester	21.1	.1	12.6	30.0	20.7	12.1	3.3

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[1] N.Y.S. Department of Commerce, Profile of People, Jobs and Housing: New York State, Business Fact Book, Part 2, 1974 Edition. Included employed workers above were all civilians 16 years old and over who during the census week did any work for pay or profit, worked without pay for at least 15 hours on a family farm or in a family business, or were temporarily absent from a job. For a description of categories see Appendix B, Part I, II.

Dutchess, Westchester and Rockland Counties maintain a high proportion of professional and technical workers relative to the other counties..... Sullivan County's large service worker population is related to its hotel industry and again such a factor must be considered in the orientation of programs in that area. While the proportion of blue-collar workers is smaller than white-collar workers for the Region as a whole, they still make up a sizable proportion of the Region's labor force. To the extent that such occupations are becoming less important in a service-directed economy, consideration must also be given to the retraining of such persons for new occupations.

Industry Groups: Analyzed by industry groups, the employed workers of the Mid-Hudson Region were concentrated in three areas: manufacturing, wholesale and retail trade, and professional and technical services. The figure for this latter category is comparatively high because of the large number of government offices, hospitals, education institutions and industrial research organizations within the Region. Agriculture, once the mainstay of the Mid-Hudson area, accounted for less than 3% of the employed workers in 1970.

Commutation: Commutation data of workers is a crucial factor for continuing education in that it indicates (1) How long a person must spend in traveling time during his day, and therefore his or her availability for educational participation and (2) How he arrives at his destination, indicating his method of transport and the availability of private versus public transport.

As can be seen from Table 11, a high proportion of workers from Putnam, Rockland, and Westchester Counties commute outside of their counties of residence. This suggests a limited time availability for outside pursuits.

Commuter means of transport are overwhelmingly weighted towards automobile use. It is only in Westchester County that a significant proportion of individuals utilize public transportation. This highlights the difficulties for students in other parts of the Region who might be unable to provide their own transportation.

(Profile Table 10)

Labor Force - Occupation Groups in the Mid-Hudson Region by Counties, 1970

	Manufacturing	Wholesale & Retail Trade	Agriculture & Mining	Construction	Business, Repair Services	Professional, Related Services	Entertainment, Recreation, Personal Services	Finance, Insurance, Real Estate	Transportati Communications, Utiliti
Dutchess	32.8	15.7	2.8	6.2	2.4	24.4	4.0	3.2	8.5
Orange	23.4	19.7	3.3	7.6	2.7	20.7	4.5	4.0	14.2
Putnam	20.5	19.3	1.7	10.9	4.3	19.6	3.9	4.3	15.6
Rockland	21.8	19.2	1.0	6.3	3.9	25.8	3.8	5.3	13.1
Sullivan	6.8	21.5	5.4	10.6	2.4	18.9	18.1	4.1	12.0
Ulster	29.3	19.1	3.0	7.2	2.5	19.4	5.7	3.9	9.9
Westchester	20.8	19.9	1.0	5.8	4.8	22.4	6.3	7.0	11.9

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[1] New York State Department of Commerce, Profile of People, Jobs and Housing: New York State, Business Fact Book, Part 2, 1974 Edition. Includes employed workers who were civilians 16 years old and over, who, during the census week, did any work for pay or profit or worked without pay for at least 15 hours on a family farm or in a family business or were temporarily absent from a job. For a description of categories see Appendix B, Part I, II

(Profile Table 11)

Commutation in the Mid-Hudson Region by Counties, 1970

	% Worked Outside County of Residence[1]	% Using Automobile for Transport[2]	% Using Public Transportation for Transport[2]
Dutchess	7.8%	83.9%	1.6%
Orange	15.8%	78.5%	3.2%
Putnam	53.9%	83.9%	6.0%
Rockland	38.1%	83.5%	5.7%
Sullivan	10.6%	74.2%	1.1%
Ulster	15.5%	84.2%	1.7%
Westchester	30.5%	63.4%	22.7%

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[1] U.S. Department of Commerce, Bureau of the Census, County and City Data Book, Washington, D.C.: Government Printing Office, 1972. As a % of workers during census week includes members of the armed forces. Excludes workers not reporting a specific location, which is about nine percent of the residents in the State. The concept utilized is also not necessarily synonomous with commuting since place of work is that during the single week before Census enumeration and not necessarily the usual location of employment.

[2] N.Y.S. Department of Commerce, Profile of People, Jobs and Housing: New York State, Business Fact Book, Part 2, 1974 Edition. Transport to work percentages are based on total employed, including armed forces, less those not reporting their means of transport. Base figures from which these totals were computed are not available. Automobile includes drivers or passengers or private automobiles. Public Transportation is railroad, subway, elevated, bus or streetcar.

(Profile Table 12)

Educational Characteristics of the Mid-Hudson Region by County, 1970 (As % of Persons 25 Years Old and Over)

	Persons 25 Years Old & Over	Median* Age of Persons 25 Years Old & Over	Less Than 5 Years	5-12 Years	4 Years High School	1-3 Years College	4 Years College	5 or More Years of College
Dutchess	124,052	12.3	5.2	36.8	31.7	12.3	8.1	5.9
Orange	120,826	12.1	3.4	42.0	34.5	10.1	5.5	4.5
Putnam	30,371	12.4	1.9	30.9	40.3	14.1	7.4	5.4
Rockland	121,009	12.4	5.2	30.8	33.5	12.1	9.5	8.9
Sullivan	30,716	12.0	3,4	46.3	31.6	10.3	4.8	3.6
Ulster	77,688	12.1	2.6	42.9	31.6	11.6	6.5	4.8
Westchester	529,841	12.5	3.9	31.6	32.0	11.5	11.1	9.9

Educational Characteristics

Sixty-one percent of the regional population aged 25 and over in 1970 had completed 4 years of high school or more. Thirty-nine percent had less than a high school degree, and were thus ineligible for post-secondary higher education. Of those who had gone beyond a high school degree, 19% of the Region had completed at least 4 years of college and 8% had gone beyond a 4-year degree.

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*Median Educational Level of persons 25 years of age and over

Sullivan and Westchester formed the two extremes in terms of educational attainment in the Region: just 50% of Sullivan's residents had completed high school, while 65% of Westchester's had. College graduates represented 8% of Sullivan's over-25 population and 21% of Westchester's. Three percent of Sullivan's residents over 25 had pursued their education beyond four years of college as compared to 10% in Westchester.

The other counties ranged themselves between Westchester and Sullivan, with Rockland, Putnam and Dutchess toward the upper end of the scale in terms of academic years completed and Ulster and Orange showing lower levels of attainment. Putnam had a particularly high proportion of residents who had stopped their education after graduating from high school - 40%, as compared to about 32% in other counties. Putnam's percentage of people with 1-3 years of college (14%) was also the highest.

...it is reasonable to assume that many of the 600,000 Region residents who have not gone beyond high school will seek to do so in the future....

SUMMARY

As we review the data presented in this chapter, two aspects of the Mid-Hudson Region are particularly striking: (1) its rapid growth both in terms of population and resources; and (2) its diversity.

Twenty years ago, the Mid-Hudson Region contained a little over one million people, most of whom lived in rural communities. By 1970, the Region had nearly two million inhabitants. Metropolitan expansion has transformed areas nearest New York City and is having an increasing effect on the counties further north. Population densities in the Region have increased 57% between 1950 and 1970; in two counties the growth has been more than 100%. The Region's minority population, though small compared to State-wide figures, also has shown substantial increases in recent years, particularly in some of the urban areas.

.........."

Note: There are a number of pockets of poverty throughout Region 3 and two such pockets occur in the Mount Vernon and New Rochelle areas.

II. MISSION AND GOAL STATEMENTS

II. Mission and Goal Statements

The missions of the institutions that make up the educational units of Region 3 vary depending on statutory law and the founding purpose of the institution.

Elementary Schools (Public)

As part of the system of free common schools provided for in the state constitution, the public schools are established "wherein all the children of the state may be educated." This 1894 constitutional clause continues to be the legal mandate for elementary school education. Although it says nothing about occupational education, it clearly speaks of education "in the broadest sense of the term"

Secondary Schools (Public)

"The board of education of each school district shall provide secondary school pupils and adults access to programs of occupational education, commensurate with the interests and capabilities of those desiring and having a need for preparatory training, retraining or upgrading for employment, and develop realistic programs in accord with manpower needs in existing and emerging occupations for present and projected employment opportunities." (Education Law Article 93, Section 4602.)

BOCES

"Occupational education programs and classes shall be organized and conducted by boards of education or arranged through shared services as provided by boards of cooperative educational services, in accordance with the rules of the regents and the regulations of the commissioner of education."

"Programs may include pre-vocational activities, occupational classes, apprenticeship related instruction, qualitative education, work experience, continuing adult occupational education, and other effective means of preparation and of upgrading employment capabilities. Classes of out-of-school youths of 16 years of age and older and for adults may be conducted during the day and/or evening." (Education Law Article 93, Section 4602.)

Adult Schools

"The Board of Education of each school district may establish and maintain day and evening schools for adults, the controlling purpose of which shall be to provide a general program of continuing education in all its aspects for the improvement of the civic, vocational and general intelligence of . . . adults . ." (Education Law, Article 93, Section 4604)

Community Colleges

"Community Colleges shall provide two-year programs of post high school nature, combining general education with technical education relating to the occupational needs of the community or area in which the college is located and those of the state and nation generally."

"Special programs and extension work may be provided for part-time students." (Education Law, Section 6303)

Private Post-Secondary Schools

The mission of the private institutions vary depending upon the purpose for which the institution was founded. Of the two degree granting institutions in Region 3 the following mission statements apply.

> The Culinary Institute of America exists "to provide qualified young men and women the educational facilities, opportunities and professional atmosphere for training for successful and rewarding careers in the expanding food industry", and therefore, "to send graduates out into the food service world with appreciation of the opportunities, and understandings of the problems of the industry, and with a realization that education is a continuous process and that the institutes' program is only the first step in their career training and education." (CIA Catalogue)

The Berkeley School exists:

> "to provide superior business education."

Clearly then, the mission or overall purpose of occupational education in Region 3 is as follows:

Region 3's Mission

THE MISSION OF REGION 3 IS TO PROVIDE FOR PERSONS OF ALL AGES THE OCCUPATIONAL EDUCATIONAL PROGRAMS AND SERVICES WHICH WILL ENABLE THEM TO IDENTIFY, DEVELOP, IMPLEMENT AND ATTAIN THEIR OCCUPATIONAL AND CAREER GOALS.

In terms of the goals of various segments and institutions of Region 3, the above overall mission can be translated as follows:

Elementary and Early Secondary Levels

TO PROVIDE ALL ELEMENTARY AND EARLY SECONDARY STUDENTS WITH A FOUNDATION OF CAREER RELATED AWARENESS, ORIENTATION, AND EXPLORATION ON WHICH TO BASE TENTATIVE AND OCCUPATIONAL DECISIONS PRIOR TO ENTERING THE LATTER YEARS OF SECONDARY SCHOOL.

Secondary Level

TO PROVIDE STUDENTS WITH OCCUPATIONAL AND CAREER RELATED EDUCATION WHICH ENABLES THEM UPON GRADUATION (OR LEAVING SCHOOL) TO CHOOSE WISELY THEIR EDUCATION AT A MORE ADVANCED LEVEL AND/OR TO OBTAIN EMPLOYMENT IN A FIELD APPROPRIATE TO THEIR CAPABILITIES, NEEDS AND INTERESTS.

Post-Secondary Level

TO PROVIDE POST-SECONDARY OCCUPATIONAL EDUCATION STUDENTS WITH PROGRAMS AND RELATED EDUCATIONAL SERVICES WHICH WILL ENABLE THESE STUDENTS, UPON COMPLETION OF THEIR PROGRAMS AND THE AWARD OF APPROPRIATE CERTIFICATES AND DEGREES, EITHER TO OBTAIN EMPLOYMENT IN A FIELD RELATED TO THEIR TRAINING, OR TO CONTINUE THEIR EDUCATION AT A MORE ADVANCED LEVEL.

Adult Level

TO PROVIDE ADULTS WITH OCCUPATIONAL EDUCATIONAL EDUCATION COURSES AND RELATED SERVICES WHICH WILL ENABLE THEM TO OBTAIN EMPLOYMENT, TO ADVANCE THEMSELVES, TO ATTAIN SECURITY WITHIN PRESENT EMPLOYMENT, OR TO OBTAIN NEW EMPLOYMENT AS THE NEED AND DESIRE FOR SUCH CONTINUING EDUCATION ARISES--AND AT THE SAME TIME HELP IN MEETING THE CHANGING EMPLOYMENT NEEDS OF THE REGION.

The above goals provide the structure for the Region 3's needs assessment and plans, by level.

III. NEEDS ASSESSMENT AND PLANS

III. NEEDS ASSESSMENT AND PLANS

A. Elementary and Early Secondary Level

At the elementary and early secondary level, occupational education is an effort to develop an awareness of career education in the minds of young people. Career education is defined widely in Region 3 as:

> "...a developmental sequence of formal and informal learning experiences, initiated during early childhood and continued throughout life, with the intension of helping individuals choose among the career options available in order to achieve their self-realization as contributing members of the community."*

1. Region 3's Total Need For Career Education

By 1980, Region 3 is estimated to have students in elementary grades as follows:

Public Schools Grade 1-8	232,136 students
Non-Public Schools Grade 1-8	32,114 students
	264,250**

In the public sector alone, this 1980 estimate represents a 0.9 percent decrease from 1975.

The 264,250 students in grades 1-8 represent minimum total student need for career education in Region 3 by 1980. It not only includes 119 public school districts, but it also represents at least 10,600 teachers.

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*This definition was prepared from one used by John Wilcox, Director, Cornell Institute for Research and Development in Occupational Education. It was utilized in a Region 3 Questionnaire sent to all school districts of the region. No one indicated use of a definition that differed markedly from Region 3's adaptation of John Wilcox's statement.

**See Table 1

2. Present Extent of Career Education

(a) Dutchess County

80% of the 15 school districts in the county, with 53 schools and 1680 teachers indicated that they had some form of career education in their districts.

This career education is largely informal and incidental. It is promoted by class visits to industry, guest speakers, units of career related study, Career Clubs in activity periods and through integrated subject matter at the junior high level. It is also at the early secondary level that short courses and/or group guidance exists--largely through the efforts of the guidance offices. Individualized planning and counselling, through sign-up sessions are also available.

One large school district reported having a full-time coordinator for career education. A sample set of topics used in the grades included:

K	Roles of people who render services
1	Jobs of Parents
2	Role of supermarkets, Law enforcement personnel, etc.
3	Occupations of American families
4	Occupations of people in other lands
5	Occupations at local industries
6	Jobs related to mass media, mini-courses in carpentry, etc.
7, 8, 9	Unified arts exploration, use of career education resources center, writing to businesses for career information, career fairs, interest tests, etc.

Eleven schools, 455 teachers and approximately 13,700 students are covered by this program alone.

(b) Orange County

60% of the 17 school districts in the county, with 50 schools and 1615 teachers indicated that they had some form of career education in their districts.

Almost all of these school districts have informal approaches to career education which rely upon the initiative of the individual teacher. Work concepts are introduced incidentally and as considered appropriate. Career education is however, integrated into most social studies classes at the junior high level.

One medium sized school district reported having a full-time career education coordinator at this time. The coordinator indicated that Hot Dog series, Bread and Butterflies video series are used along with guest speakers. Six schools, 280 teachers and approximately 8000 students are covered by this program alone.

(c) Putnam County

93% of the 6 school districts in the county, with 18 schools and 853 teachers indicated that they had some form of career education in their districts.

Although some career education awareness is being developed in the early grades, most career education is in the 6 to 9th grades--and it is in guidance class meetings, practical arts classes and when planning future high school programs with students.

However, one medium sized school district reported that it now has a full-time career education coordinator and a carefully prepared career education program. Goals and objectives for grades 4 to 6, recognize the difficulty of defining the concept of career education. The need for career education to permeate all of the curricula is emphasized. New materials to help integrate career education with the on-going instructional program at the junior high school level are available in order:

"to increase the career options available to students and to facilitate more rational and valid career planning preparation."

Six schools, 301 teachers and approximately 9,000 students are covered by this program.

(d) Rockland County

36% of the 11 school districts, with 37 schools and 980 teachers indicated that they had some form of career education.

Almost all of the school districts spoke of a BOCES cooperatively developed set of guidelines. 40 units of instruction, under the auspices of this project, are being used in one school district.

One medium sized school district pointed out their concept of career education differed from that being used for Region 3's planning purposes, in that it (the former) stressed career options as life role options. This district's approach to career education is to attempt to infuse into the curricula "role recognition, self definition and decision-making skills" and to do this throughout the district. This school district sees the rubric "career education" as being highlighted on the national scene - but to the schools themselves, it means a realigning of the purposes of education, including the "acceptance of responsibilities within groups (family, neighborhood, country, state, nation and world) and the need to maintain a necessary degree of economic independence." Because this district believes that the "dynamic nature of society will require the ability to make decisions in multi-career lives and to make major adjustments in family roles" it places emphasis on career education as education for life. Six schools, about 300 teachers and approximately 9,000 students are covered by this expanding program.

(e) Sullivan County

80% of the school districts in this county, with 15 schools and 542 teachers indicated that they had some kind of career education.

For the most part, this is informal career awareness in the early grades with field trips and speakers. One school district has developed grade level topics relating to the community, working in it, the "wide world of jobs" and exploring the world of work. In the 7, 8, and 9 grades, career education is explored as part of the social studies program with the use of films, discussions and assemblies.

Considerable interest exists in planning for new directions in career education and in in-service training of teachers in this regard. Workshops are being held and joint committees established.

(f) Ulster County

90% of the ten school districts in this county, with 45 schools and 1,393 teachers reported some kind of career education programs.

Informal, class oriented learning, dependent upon the interests of the teacher exist without a structure or a coordinated program. Some schools hold pupil prepared Career Awareness Days, with displays and exhibits. Mini-courses and exploratory programs exist at the junior high level and with career education offered as part of the social studies program. Counselling, interest testing, and career workshops in conjunction with the Chamber of Commerce, are frequent activities.

However, almost all of the school districts spoke of the need for change in career education in the future.

(g) Westchester County

32% of the 50 school districts, with 67 schools and 2,256 teachers reported some kind of career education programs.

As in the other counties, much of the existing career education is left to be introduced by the class teacher, where feasible and appropriate. General discussions are held and appropriate units are used in all grades. Ten week units and visits to BOCES are undertaken at the 7th and 8th grades and here a program coordinator is often designated. Organized self awareness career exploration programs exist in some junior high schools.

One school district reported that it is part of a continuing consortium effort aimed at providing maximum local effectiveness in attaining local career education priorities. Its overall goal is:

> "to insure the infusion of those career education activities for grades k-12 that will equip all students upon graduation with increased self-awareness and career decision-making skills which will allow them to understand the options, alternatives and limitations existing in the world of work, they will therefore, be able to pursue careers that are more successful and personally satisfying."

Career decision-making skills, work attitudes and self understanding are seen as important preparations for future living. Interest in this provides motivation for learning and in helping the student to answer the question "Why must I study this?"

These school districts are working, therefore:

- to seek to improve teacher skills, knowledge, and abilities needed to implement career education effectively
- to broaden the knowledge of counselors
- to help them to reexamine and restructure guidance processes so that they can transmit group skills, decision-making skills and self-concept skills to students
- to involve the business, industry and labor communities more fully in career education programs
- to have schools utilize advisory councils to help with the project objectives
- etc.

Furthermore, another school district has stipulated:

> "-that occupational orientation in the elementary, middle and early secondary years will provide all students with the basis for informed decision-making regarding their occupational and educational plans for the immediate future."

3. Region 3's PLAN to Help Achieve the Goal of Elementary and Early Secondary Level Occupational Education, as set forth on page 25

Region 3's Planning Goal is:

To extend the present quality and quantity of career education in Region 3 by 1980.

Priorities to be Achieved

(a) By 1980 career awareness activities will be infused in all major elementary curriculum areas.

(b) Increased activities will be provided to develop student decision-making skills.

(c) More early secondary level classroom activities will be provided to facilitate student self-exploration of interests, skills and values.

Strategies to Accomplish Goals and Objectives by 1980

-Expand the informal aspects of career education in grades K to 6.

-Formalize existing programs so as to provide a more sequential and developmental approach to career education in the early grades.

-Create a structure for evaluating programs in career education.

-Formulate a procedure for disseminating validated elementary level career education programs.

-Encourage the provision of in-service training programs for teachers, designed to promote interest and expertise in the implementation of career education.

-Seek federal funding for the development of curriculum resources for the implementation of career education goals.

-Work for the establishment of an area resources center.

4. Role of Region 3's Occupational Education Planning Committee and Directors

Region 3's Occupational Education Planning Committee has a major interest in the development of career education at the elementary and early secondary levels. Specifically:

(a) The Committee can serve as a focal point for the collection and distribution of information.

(b) The Committee can organize workshops on career education to help school districts develop their programs, retrain their staff, and properly relate the infusion of career education into the curriculum in sequential order and also articulated with the secondary level.

(c) The Committee can encourage secondary level units to continue to prepare guidelines, in cooperation with the school districts, so as to help integrate and articulate sequences of career education in existing curricula.

B. Secondary Level

1. Present and Future Extent of Occupational Education

The number of secondary school students currently served in occupational education is as follows:

Public Sector	40,684	94.6%
Non-Public Sector	2,335	5.4%
Total	43,019*	

This represents as of 1975, 31.8 percent of all public secondary school enrollment, as far as the public sector is concerned. It also represents 23.3 percent of all young people age 15 to 19 currently believed to be in Region 3.**

By 1980, Region 3 expects a 3.9 percent increase in population age 15 to 19--although a 5.1 percent decrease is predicted for Westchester County, mainly in the Yonkers area.***

Projected Change--Age 15 to 19
1975-80***

Dutchess	+ 9.6%
Orange	+10.3%
Putnam	+33.7%
Rockland	+ 9.7%
Sullivan	+ 9.0%
Ulster	+ 5.2%
Westchester	- 5.1%
Region 3	+ 3.9%

This suggests that at least a corresponding 3.9 percent increase in students in occupational education ought to occur in Region 3 by 1980. Given the poor conditions of the economy in the past few years, it is also probable that the demands for secondary level occupational training will further intensify in order that individuals can develop appropriate job skills to compete for existing employment opportunity. Region 3 therefore, predicts at least 44,740 students in secondary occupational education by 1980, with 42,325 in the public sector and 2,415 in the non-public sector.

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*See Table 3
**See Table 3
***See Table 4

If the present distribution of secondary level occupational education students continues, (although a small decrease in Yonkers will probably occur) Region 3 can expect about 42,325 public and 2,415 non-public secondary level occupational education students distributed as follows:

Estimates of Number of Occupational Education Students--Secondary Level 1980*

	Public		Non-Public	
Yonkers	3,598	8.5%	210	8.7%
LEA's	30,347	71.7%	1,447	59.9%
BOCES	8,380	19.8%	758	31.4%
TOTAL	42,325		2,415	

2. Present Program Distribution

Student interest in occupational education in 1975, in Region 3, shows that the following areas were those in which students sought training.**

Program Area	Percent of Occupational Education Students, Secondary Level
Business/Office (Prevocational, Bookkeeping, Data Processing, Gen. Office, Stenographic Secretarial and Related Occupations)	68%
Trade/Industry and Public Service (Prevocational, Air Conditioning, Refrigeration and Heating, Appliance Repair, Automotive Services, Commercial Art, Photography, Construction Maintenance, Custodial Services, Drafting, Electrical Occupations, Electronics, Graphic Arts, Machine and Metal Industries, Personal Services, Quality Food Occupations, Textile Production and Fabrication, and Other Trade/Industry and Service Occupations)	22%

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*These are quo estimates, not allowing for population decrease in Yonkers which could be balanced by an increase in occupational education enrollment by students not previously so enrolled.

**See Table 2

Program Area	Percent of Occupational Education Students, Secondary Level
Distributive Education (Prevocational, Advertising, Food Distribution, Merchandising, Sales and Real Estate)	4%
Health Occupations (Prevocational, Dental Assisting, Medical Lab., Nursing (practical and assisting), and Other Health Occupations)	3%
Agricultural Education (Prevocational, Agricultural Production, Agricultural Business, Agricultural Mechanics, Horticulture, Conservation)	2%
Technical Education (Prevocational, Aeronautics, Architectural, Automotive, Chemical, Electronics, and Mechanical Technology)	1%
Home Economics (Food Management and Production, Care and Guidance of Children, Institutional and Home Management and Supporting Services, Home Furnishing, Equipment and Service)	1%

An analysis (based upon a depressed economy) of employment outlook in Region 3 by 1980, in the light of these program areas and interest in the occupational education offerings clustered within each group, shows the following:

a. Business and Office	By 1980*
Office Machine Operator	Slow Increase
Stenographers, Typists, and Secretaries	Modest Increase
Keypunch Operators	Little or no Change
Computer Peripheral Equip.	Very Rapid in Increase

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*See Tables 6 and 7 for details of changes, including percentages

This group of occupations will have a slow to moderate increase by 1980 in Region 3. The increase can be equated to 5% to 30% increase over the number of such workers in 1970. The larger percentage increase is anticipated in Rockland and Westchester Counties and for the most part in the Stenographical occupation, with smaller percentage increases in other counties. Little or no change in Office Machine Operator job opportunity is expected in Sullivan County. Although automation will alter working conditions, the demand for skilled secretaries will continue - as will that of clerical workers, especially in banks, insurance companies, manufacturing firms and professional service organizations.

b. Trade/Industry (Human Service)	By 1980
Mechanics, Repairmen and Installers	Slow Increase
Air Conditioning, Heating and Refrigeration	Very Rapid Increase
Auto Accessory Installers	Slow to Moderate Increase
Auto Body Repairmen	Slow to Moderate Increase
Auto Mechanics	Slow to Moderate Increase
Heavy Equipment Including Diesel	Little to No Increase
Household Appliance Mechanics	Moderate Increase
Radio/TV Repairman	Little or no Increase
Other Mechanics and Repairmen	Slow Increase
Photographers	Little or no Change
Printing Trade Craftsmen	Moderate Decline
Photographic Process Workers	Slow Increase
Transportation, Public Utility	Little or No Increase
Electrician	Slow Increase
Painters, Contruction Maintenance	Slow Increase
Cleaning Service Workers	Moderate Increase
Janitors	Moderate Increase
Draftsmen	Slow Increase
Barbers	Little or No Change
Hairdressers, Cosmotologists	Slow Increase
Welfare Service Aids	Very Rapid Increase
Protective Service Workers	Moderate Increase
Quality Food Occupations	Slow Increase

Here, too, Region 3 is expected to have a 5% to 15% increase in workers in 1970 to 1980 - with service workers of all kinds showing slow to moderate increases. No radical changes are therefore predicted in this group of occupations, particularly as the economic climate remains relatively static.

c. Distributive Education	By 1980
Advertising Agents and Salesmen	Moderate Increase
Sales Workers	Moderate Increase
Sales Clerks, Retail	Moderate Increase
Insurance Agents	Moderate Increase
Real Estate	Slow Increase
Recreation Workers	Rapid Increase

Fifteen percent to 30% increase in sales and related occupations are expected with recreation and tourism showing a slightly higher growth. The modest increase will include replacement personnel, and changes related to consumers spending patterns.

d. Health Occupations	By 1980
Health Service Workers	Moderate Increase
Dental Assistants	Slow Increase
Health Aides	Very Rapid Increase
Health Trainees	Very Rapid Increase
Nurses, Aides and Orderlies	Rapid Increase
Practical Nurses	Very Rapid Increase
Homemaker Home Health Aide	Very Rapid Increase

Except then for dental assisting, Region 3 anticipates a very rapid increase of 40% or more employment opportunities in health occupations from 1970 to 1980.

e. Agricultural Education	By 1980
Farmers and Farm Managers	Moderate Decline
Foresters, Conservationists	Slow Increase
Animal Caretakers	Little or no Change
Gardeners and Groundsmen	Moderate Increase
Farm Foremen	Slow Decline

Five percent to 30% decline is expected in this area of job occupations from 1970 to 1980, thus continuing the general decline in these types of activities.

f. Technical Education	By 1980
Chemical Technician	Little or no Change
Draftsmen	Slow Increase
Electrical and Electronic Technicians	Moderate Increase
Industrial Engineering Technicians	Little or no Change
Other Technicians	Moderate Increase

Zero percent to 30% increase from 1970 to 1980 can be expected in this area. However, the flurry of industrial expansion presently felt in Orange County is creating a need for new technically trained individuals.

g. Home Economics	By 1980
Child Care Workers	Little or no Change
Housekeepers, Except Private	Moderate Increase
Housekeepers, Private	Moderate Decline

Little or no increase is expected in this area.

The occupations that can be identified where additional workers will be needed are therefore clearly those that already have the greatest appeal - i.e., in the business/sales/personal service/health service/human service and protective service areas.

In the light of the above, the types of programs presently offered in Region 3 appear to be appropriate. In fact, William C. Deyo as quoted in Cornell Institute for Research and Development in Occupational Education, Career Commentary, May, 1976, said that of 385 occupation categories or titles represented in our entire labor force, the 35 largest occupations provide for over half of our workers and

> "We have no reason to assume any major change in this distribution of work opportunity ... (and) approximately fifty percent of the sixteen to twenty-one year age group will for the foreseeable future, ... seek employment where opportunity exists, in those 35 occupations."

3. Needs of the Disadvantaged and Handicapped

Disadvantaged students in public occupational education represent 3.3% of all public secondary school students but 10.2% are occupational education secondary level students (public sector).*

Furthermore, at this time although Region 3 occupational education has 3.3% of its total students handicapped, it is serving the needs of 80.7% of all secondary handicapped students in the region.

The special needs of the disadvantaged are recognized by Region 3 to be:

-Reading, language and math skills
-Early vocational training in employable skills
-Job getting skills

The special needs of the handicapped are seen to be:

-Job training, with transportation help in some cases
-Living skills
-Special and individualized programs, especially for deaf, amputees, paralysis victims, deafmutes, and the blind

The special needs of the disadvantaged and handicapped secondary level students are met in Region 3 through programs of Special Education which frequently contain both an exploratory aspect and a special skills aspect. These aspects are modified as needed for individual students. Work-study coordinators assist students with on-the-job training when they are ready for the world of work. The trainable mentally retarded (TMR) and the educatable mentally retarded (EMR) are served as well as those with learning disabilities and physical handicaps. Learning labs, and resource rooms are used. Remedial reading and math and communications skills are provided for skill reinforcement, and other modified courses also. Multi-occupational education courses serve many of these students. However, handicapped students follow the "mainstream" wherever possible. Home tutoring may be used and also cooperative work experience for entry level employment. Furthermore, Region 3 works closely in this regard with the office of Vocational Rehabilitation and the Association for Retarded Children. Workshops and individualized programs, as practical, are used.

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*See Table 8

4. Continuation to the Post-Secondary Level

Eight percent of all the secondary level occupation education completers of 1975 continued their education at another level.* 5.2% continued in the occupational education area and 2.8% in other areas - making an overall ratio of continuation in occupational education to non-occupational education of 13:7. The distribution of these continuing students by program area reflected the numbers in and completers of the seven broad program areas.

Present provisions in Region 3 for easing the transition of secondary level occupational education students to post-secondary level include the following: advanced placement in two-year college programs as appropriate; proficiency examinations for granting credit for learning achieved in occupational programs; competency tests as career ladder devises for practical nurses to enter community college associate nurse programs and for medical assistants to continue in a Medical Technician program; interlocking membership on advisory councils; joint meetings of secondary and post-secondary occupational education teachers.

Region 3 recognizes that the above efforts within the counties to achieve articulation, are in the right direction, as is the extensive concern for improved guidance and counseling, institutional visits, and more frequent administrator/faculty face-to-face meetings. Furthermore, Region 3 suggests that problems of articulation can be eased if the desire to work cooperatively is encouraged and is demonstrated by action.

5. Region 3's PLAN to Achieve the Goal of Secondary Level Occupational Education, as set forth on page 25

Region 3's Planning Goal is:

> To modify and improve occupational education in Region 3 by 1980.

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*See Table 9
At least one Region 3 respondent to a questionnaire pointed out that consideration of this matter should not infer that students of secondary level occupational programs ought to continue to the post-secondary level.

Priority Objective*

To provide students with occupational and career related education which enables them upon completion of training to:

(a) Be trained at a competency level related to their potential.

(b) Be qualified for immediate employment in the area of their training.

(c) Be trained at least at a minimum level of competency.

(d) Have positive attitudes toward work.

(e) Be in possession of decision-making skills.

(f) Be capable of making a positive contribution to society.

(g) Be able to consider themselves as worthwhile human beings.

(h) Have skills that can be used for employment at a future date.

Strategies and Other Proposals to Accomplish the Goals and Objectives*

(a) Business/Office Education Areas

-Maintain complete existing business/office programs in all units, making specific additions and eliminations to curricula as needed.

-Develop greater articulation of business education programs among types of secondary school units.

-Give renewed emphasis to good language skills.

-Expand the training of stenographers, especially for small business operations.

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*As developed and proposed by Region 3 at a workshop, June 30, 1976 and modified by the Planning Committee, September 28, 1976

(b) Trade/Industry (Human Services)

-Increase the curricula content of trade/industry technical programs because possible extension of licensure in fields dealing directly with the public will affect these program offerings.

-Restructure the basic training aspects of all technical skill programs.

-Base course offerings not only on future employment possibilities but also on the interests and demands of the students seeking public and human service programs.

-Expand programs relating to quantity food occupations in the southern part of the Region.

-Review all existing personal service programs for their greater effectiveness.

(c) Distributive Education

-Work to replace the term Distributive Education with a more specific title.

-Expand sales, distribution and merchandising programs through the use of shopping centers as satellite laboratories.

-Encourage program enrollment in this area both for the entire year and/or for modules of instruction.

-Upgrade courses of study by incorporating modules of instruction and performance objectives which will be relevant to the needs of students.

(d) Health Occupations

-Plan health program offerings with future needs of the region in mind - particularly the health care facilities expected in the future.

-Provide a greater and wider variety of exploratory experiences in the health related occupations throughout the high school years.

-Develop core programs in the health field and implement these across levels to help to expand job opportunities and to develop effective training programs.

-Establish a method of distributing information and reporting successful aspects of exploratory programs.

(e) Agricultural Education

-Update and articulate existing agricultural education programs and cluster them in order to gea: them more adequately toward preparation for the 2-year degree programs - especially in horticultural and environmental program areas.

(f) Technical Education

-Articulate program development and review with post-secondary level, especially as new program entry requirements are considered.

(g) Home Economics Education

-Upgrade all Home Economics programs to provide exploratory and pre-vocational experience.

-Develop close articulation with representatives from the State Education Department's Office of Special Education.

(h) Disadvantaged and Handicapped

-Provide services which will enable disadvantaged secondary students to complete high school, to make plans for employment and to further their education.

-Assist handicapped secondary students to profit from occupational education by providing meaningful programs and services.

-Develop close articulation with representatives from the State Department's specialists in Special Education.

(i) Other Proposals to Meet the Needs of Students

- Consistently retrain staff in terms of changing occupational requirements, (e.g., of new computer systems, terminal operations, etc.)
- Upgrade staff so they can maintain the state of the art and increase their ability to instill in students proper attitudes, work habits and skills.
- Develop follow-up studies that concern themselves with employer satisfaction in addition to the number of students placed in jobs - as another means of determining reliability of programs.
- Intensify guidance and counseling in order to help students relate personally identified skills and interests to constantly changing job opportunities that can be identified now and in the future.
- Expand cooperative sharing of facilities and equipment.
- Assiduously develop career orientation.
- Provide a clearing house for information for occupational education in Region 3.
- Restructure some health occupations with the help of school personnel and health professionals.
- Encourage the State Education Department to hold regional instructors workshops - especially for new teachers entering the field of occupational education.
- Review curricula to see that prerequisites of post-secondary level are met.
- Provide post-secondary institutions with copies of advanced curricula used at BOCES and other occupational education units.
- Maintain liaison with the Department of Labor and other employment agencies to identify employment needs and trends.
- Promote greater emphasis on performance based instruction in all occupational education programs.
- Encourage the use of all available resources to enable students to develop their full potential.

For specific details of this Region 3 PLAN, reference should be made to the long-range plans of the individual schools.

C. Post Secondary Level (All Associate Degree Programs)

1. Present and Future Student Enrollments

The present enrollment in post-secondary occupational education programs at the associate degree level is 9,349 students. This consists of about 57% of all two-year (including certificate programs) full-time post-secondary level public two-year college students in Region 3.

Programs offered at this level show a different distribution from those offered at the secondary level.*

The distribution of full and part-time students in two-year and one-year programs in 1975 is as follows:

Business/Office (Bookkeeping, accounting, data processing, stenographic and secretarial science, supervision and administrative management, general office and clerical)	32.3%
Trade/Industry and Service (Refrigeration and heating technologies, construction and maintenance technologies, law enforcement and criminal justice, social and human service technologies and public service technologies)	23%
Health Occupations (Nursing (associate degree), dental assisting, dental hygienist, medical laboratory technician, medical therapy, radiological technology, mental health, and other allied health technologies)	22.7%
Technical (Architectural, chemical, civil, electrical, mechanical, and other engineering related technologies)	11.2%
Distributive Education (Advertising services, finance and credit, general sales management, hotel and lodging, recreation and tourism, insurance, real estate and banking)	8.8%

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*See Tables 10, 23, 24 and 25

Home Economics Education (Child guidance and care, food management, production and service)	1.1%
Agriculture (Ornamental hortoculture conservation, etc.)	0.9%

Only two private post-secondary associate degree granting institutions exist in Region 3.

Enrollment trends for the future* based on the present overall 53% distribution of FTE students in occupational educational programs (i.e., 58% of the full-time, 40% of the part-time students) indicate a 21% increase over 1975, for the public sector - if present enrollments are maintained and no enrollment "lid" is imposed by state agencies. This means, for Region 3 (1980):

Full-time occupational education students	11600
Part-time occupational education students	7500
FTE occupational education students	13500

Plans for adapting to this student increase are set forth in the 1975 campus plans for community colleges.

2. Growth of Occupations By 1980

The following occupations in Region 3 are predicted to show change by 1980. (The predictions are based on a depressed economy.)

a.

Business/Office Technologies	By 1980
Stenographers, Typists, Secretaries	Moderate Increase
Secretaries, Legal	Rapid Increase
Secretaries, Medical	Moderate Increase
Secretaries, Other	Moderate Increase
Stenographers	Slow Increase
Typists	Slow Increase
Keypunch Operators	Little or No Increase
Tabulating Machine Operators	Very Rapid Increase
Computer Specialists	Moderate Increase
Computer Programmers	Moderate Increase
Other Computer Specialists	Rapid Increase
Office Managers	Moderate Increase

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*See Tables 26 and 27

Five percent to 30% increase from 1970 to 1980 is expected in Region 3 for jobs in the secretarial office areas. Up to 40% or more increase is expected in the computer areas.

b. Public Service Technologies	By 1980
Personal Labor Relations	Rapid Increase
Recreation Workers	Rapid Increase
Social Workers	Rapid Increase
Protective Service Workers	Moderate Increase
Fire Protection	Rapid Increase
Photographers	Little or No Increase

Thirty percent to 40% or more increases are expected in most of these occupational areas over 1970 to 1980.

c. Health Technologies	By 1980
Clinical Lab Technicians	Very Rapid Increase
Dental Hygienists	Very Rapid Increase
Health Record Technology	Very Rapid Increase
Radio Logical Technology	Moderate Increase
Therapy Assistants	Moderate Increase
Registered Nurses	Moderate Increase
Other Health Technologies	Moderate Increase

Fifteen percent to 40% increase in 1970 to 1980 are clearly expected in the health technologies.

d. Technical	By 1980
Agricultural and Biological Technicians	Moderate Increase
Chemical Technicians	Little or No Change
Electrical Technicians	Moderate Increase
Industrial Technicians	Little or No Change
Mechanical Engineering Tech.	Slow Increase
Engineering Science Tech.	Very Rapid Increase

On the whole, a slow increase is expected in the technical area during the years 1970 to 1980, i.e., 5% to 15%, but with engineering science technicians of varied kinds increasing 40% or more.

e. Distributive Education	By 1980
Bank and Financial Managers	Moderate Increase
Credit Men	Little or No Increase
Sales Managers, Retail	Moderate Increase
Restaurant and Hotel Managers	Little or No Increase

Real Estate Agents and Brokers	Slow Increase
Sales Representatives, Retail	Moderate Increase
Sales Representatives, Construction	Moderate Increase
Insurance Agents and Brokers	Moderate Increase

Little or no change and moderate increases of 0% to 30% are expected in the above occupations during the years 1970 to 1980.

f. Home Economics and Agricultural	By 1980
Animal Caretakers	Little or No Change
Conservation	Slow Increase
Farm Management Advisors	Moderate Decline
Home Management Advisors	Moderate Decline
Child Care Workers	Moderate Decline

These technologies will show little or no change and may even have a slow decline of minus 15% during 1970 to 1980.

Unfortunately, occupational education classifications fail to correspond to the HEGIS classifications commonly used for two-year colleges. This makes all reporting of occupational program enrollments at the post-secondary level not only difficult, but also open to duplication and/or admission through the misclassification of data.

3. Articulation Between Levels

Articulation between associate degree level programs, the secondary level and adult level (including various other agencies offering occupational programs) presently exist in a variety of ways. Career ladder concepts are employed in some program areas. Repetitive courses are avoided (and its problem recognized) by the granting of credit for skill training and for prior learning gained in earlier programs. Cost effective sharing of high cost instructional hardware and facilities exists. The provision of experimental learning opportunities at each other's institutions occurs. Furthermore, new technological programs are being developed jointly, and on a 2 + 2 basis.

4. Needs of the Disadvantaged and Handicapped

5.7% of all full-time and part-time post-secondary occupational education is concerned with a disadvantage and 0.5% of the students are handicapped.* Special needs of the disadvantaged and handicapped are met in the following manner.

Existing provisions to improve the opportunities for succeeding in occupational programs include: learning resource labs; study skills labs; self-instructional audio-visual units of remedial education; special late scheduling of sections for those in need of slow-pace instruction.

In view of the fact that all two year technological programs include general education, remedial tutoring and counseling services are non-distinguishable for occupational education students as from all other students - especially in special developmental education and EOP programs.

5. Region 3's PLAN to Achieve the Goal of Post-Secondary Level Occupational Education, as set forth on page 25

Region 3's Planning Goal is:

> To make programs more compatible with employment opportunities by modifying existing major programs and by introducing new options.

Priorities to be Achieved

(a) By 1980, career development needs of clientele, both students and employers, will be met by continuing to make programs compatible with employment opportunities, as far as possible.

(b) Improved capability to play beyond the conventional wisdom, both for career development and client needs, will be achieved.

(c) Improved information sources will be created with better clarification of program titles and terminology.

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*See Table 12

Strategies to Accomplish These Goals and Objectives by 1980* - Which Ought to be Considered

(a) Business Technologies

-Utilize field experiences more widely in business programs to help in terms of student identification with a career and with work - especially as prospects for expanded cooperative education appear to be dim.

-Establish and maintain close relationships with industry and follow changes in the computer industry, so as to adequately and effectively update all computer related programs.

-Focus some business/office programs more in the direction of word processing than in the direction of keypunch and other office machine programs.

-Consider the need for data communication and the preparation of data for consumer use.

-Update all existing programs in office machine operations.

-Incorporate human relations skills into all business programs.

-Emphasize anew good language skills.

-Restructure programs so as to provide more generalized training, especially in the first year, so that sophisticated skills can be developed later.

-Expand the training of stenographers, especially for small business operations.

(b) Public Service Technologies

-Continue and expand all programs in law enforcement, civic and public service workers, and recreation.

-Expand experimental learning opportunities to the public service technologies.

-Develop flexible delivery systems to provide job entry skills for students and to meet the changing skills and personnel needs of employers.

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*As developed and proposed by Region 3 at a workshop on June 30, 1976 and modified by the Planning Committee September 30, 1976

(c) Health Technologies

-Consider the expansion and redesigning of offerings that help to create career ladders in the health services occupations.

-Expand existing health related programs to meet area needs and student demand.

-Create more work experiences in hospitals, clinics, offices and public agencies and establigh these as an integral part of the programs offered. Expand the use of voluntary agencies in this area.

-Reflect, in nursing programs, the growing shift toward the more social and psychological based tasks required of a nurse as the dispenser of primary care.

-Develop and implement core programs in the health field that cross levels of education.

-Consider in all program development and growth that National Health Insurance, if passed by Congress, will favorably affect programs and employment opportunities as a greater variety of health services become available to citizens.

-Undertake self evaluations and continually review health programs and their relationship to community needs - both in the interest of students and in the interest of cost effectiveness and fiscal responsibility.

-Consider the development of options in existing health technology programs to provide for the training of geriatric nurses and midwives.

(d) Mechanical/Engineering Technologies

-Restructure programs so as to emphasize fundamental concepts so that students can better cope with rapidly changing technology.

-Reconsider program entry requirements and prerequisites.

-Restructure and regroup existing programs for greater learning effectiveness and both educational and financial accountability.

- Develop programs that will provide science lab technicians to meet the needs of the growing industrial laboratory component of manufacturing in the region.

(e) Natural Science Technologies

- Create new environmental quality programs, particularly ones dealing with water, air, noise, solid waste, and pesticides - in order to provide for growing specialist job opportunities, such as that of aquatic biologist and wildlife biologist, environmental engineer, and fish and wildlife manager.

- Develop programs to prepare technicians for instrumentation and monitoring systems that will be required by OSHA, EPA and other agencies concerned with the environment and safety.

(f) Other

- Use existing courses to expand the options available in existing program areas.

- Expand offerings in the area of communications and media so as to serve the increasing needs of education, industry and consumers.

- Restructure programs to provide for the training of day care workers and group home workers.

(g) Articulation

- Continue to increase efforts to achieve articulation, both between levels and horizontally - by program, facilities and staff.

- Organize regional health planning conferences, to bring health educators and health personnel, health professionals and consumers together. Relate planning efforts to the new federal Health Systems Agency and to its producer and consumer advisory groups.

- Encourage the development of pilot and exemplary core programs that cross levels and tie one into the other as a means of helping to develop the career ladder concept.

- Continue the development of 2 + 2 programs.

(h) Disadvantaged and Handicapped

-Develop stronger commitments to support developmental education and to expand its offerings.

-Expand faculty development, the use of electronics and multi-media to bring education to the handicapped.

-Reconsider various types of relevant work-study programs as a menas of providing "on-the-job" career exploration and improving skills and instruction.

(i) Other Proposals

-Develop staff retraining programs which consider mobility so that if relocation is necessary, it can be achieved.

-Evaluate curriculum entry requirements so that opportunities are given, when limitations exist, to those with the proper prerequisites.

-Encourage counselors to continually update their skills and knowledge and keep in daily contact with industry and employment changes.

-Mobility of program completers for jobs outside the region should not be overlooked in all program planning and counseling.

-Use regional plans cautiously so as not to prevent the establishment and development of viable programs.

-Relate health planning to federal health system agencies and to students and/or the existing work forces. All of these should be involved.

-Work to relax the continuing tension between certification/accreditation agencies and educational institutions.

-Work to develop flexible delivery systems utilizing such techniques as: community based instruction; practitioner/part-time faculty; awarding credit on the basis of performance of the defined competencies and objectives of course equivalents; options which will increase the flexibility of the delivery of the arts and sciences components for the occupational programs; use of self-learning course materials; granting of credits for competencies achieved through life experiences; and use of learning contracts.

-Intensify advisory council activity to provide reliable, up-to-date and localized information on new technologies and employment patterns.

6. Relationship Between the Plans Set Forth Herein and the Plans Contained in the "Regents Statewide Plan for the Development of Post-Secondary Education"

The Regents Statewide Plan for the Development of Post-Secondary Education 1972 calls for articulation of post-secondary programs with the secondary level programs. This subject is addressed in this plan.

D. Adult Level (i.e., includes programs at two-year colleges and education opportunity centers below the associate degree level.)

1. Indicators of Total Need for Occupation Education among Adults and the Effectiveness of Meeting these Needs

One of the major indicators of the need for adult occupational education is the present enrollment of adults in occupational education. At this time, 1975, 10,235 are enrolled in secondary level adult eduation with 51.4% in Trade/ Industry and Service programs, 34.6% in Business and Office Education, 7.2% in Health Occupations and the remainder in Distributive and Agricultural Education. Almost negligible enrollments exist in the Home Economics and Technical education fields.*

Another indicator of the need for adult education is the changing nature of the economy and population changes. 273,469 adults age 25 to 34 in Region 3 are expected to increase 22.4% by 1980, adults age 35 to 54 will increase 4%.** Economic vicissitudes makes the offering of refresher courses a major priority of adult education. Furthermore, the ACHMA study*** of adult education in Region 3 sampled the opinions of over 3,298 adult students, including students at Dutchess BOCES, Dutchess Community College and Rockland Community College. Although it did not predict future enrollment, the study assumed that present enrollments would not only continue but increase significantly.

Forty-five school districts are known to have adult education programs in Region 3.**** All BOCES institutions have such programs also. All community colleges admit adult students to associate degree programs regardless of age, but these students are not distinguished from students who enter the College directly from high school. They are in fact seeking associate degrees. Other adults enroll in courses, usually offered in the evening.

Thus at this time 24.0% of all community college students in Region 3 are 25-34 in age and 17.2% are 35-59. Furthermore, there are almost as many students age 20-24 part-time as there are full-time.

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*See Table 13
**See Tables 3 and 4
***Op. Cit., Section I above
****See Exhibit 6

Region 3*	Full-time	Part-time	Total	%
15-19	7,708	2,116	9,824	30.7
20-24	4,592	4,190	8,782	27.4
25-34	2,251	5,442	7,693	24.0
35-59	1,648	3,873	5,521	17.2
60+	35	70	105	0.3
Unknown	84	45	129	0.4
Total	16,318	15,736	32,054	

Although special non-credit courses are also offered in the two-year colleges for evening and part-time students and are frequently a vehicle of upgrading and refresher work in occupational education areas, data compilation of such courses includes remedial with vocational courses and in some cases with other allowable educational course offerings. The magnitude of this kind of adult occupational education is not therefore clearly visible at this level - particularly when the general education component of all post-secondary level offerings is also an essential part of such training.

Proprietary and other occupational schools in Region 3 are in the areas of Business, Cosmetology, Flying, Nursing, other Health occupations, Trade and Technical occupations. The existence of these schools indicates an apparent need for the training offered. Furthermore, many industries have their own training/upgrading programs.

2. Relationship of Basic Educational Programs and Services to Adult Occupational Education

The relationship of basic educational programs and services to adult occupational education is important and crucial. Without this reading, writing and basic mathematical ability adults and out of school youth cannot properly avail themselves of any other occupational training program.

Thus we find Pre-College Adapter and GED programs at Westchester Opportunity Center and HVOIC. Most CETA programs include referral to other agencies for high school equivalency programs. Almost all high schools and BOCES adult education include high school equivalency. Furthermore its very remedial nature makes it the foundation of all programs for the disadvantaged. The New Options program is, for example, an individualized plan to strengthen technical reading, math and "job getting" skills which are, of course, indigenous to a person's occupational training and occupational future.

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*See Table 17

3. Needs of The Disadvantaged and Handicapped

In the LEA's (including Yonkers) and BOCES 10.2% of all adult education enrollment is disadvantaged and 0.3% handicapped. The disadvantaged are distributed 44.5% in Business and Office Education, 37% in Trade/Industry and Service programs and 14.0% in Health Occupations, with the remainder in Distributive Education (3.6%), and with negligible enrollments in Agricultural Education and Home Economics.*

The Westchester Educational Opportunity Center, also in Yonkers, but administered by Westchester Community College, is devoted to the needs of the disadvantaged older student. It provides programs and services (including resource services utilizing the "laboratory" approach to learning) which will expand life options, open career opportunities and meet the educational interest and needs of certain students qualifying for free tuition, supportive services and related materials. Eight programs of varying lengths are offered: Basic Education; English as a Second Language; High School Equivalency; Pre-College Adaptor; Clerical and Secretarial Skills; Food Preparation and Institutional Cooking; Junior Business Skills; and Civil Service Career programs. 1300 participants in these programs in 1975-76. About 1365 participants are expected in 1980 (i.e. a 5% increase). Computer Skills may be added.

The non-profit Hudson Valley Opportunities Industrialization Center, Inc., located in Poughkeepsie, Beacon and Newburgh, provides manpower training for unemployed and underemployed disadvantaged persons 17½ years of age or older.

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*See Table 14

For the most part these persons are single heads of households. Courses include: Air Conditioning and Refrigeration; Welding; Clerical Skills; Health Services; Bus Driving; Carpentry; Office Machine Repair; Basic Education; and High School Equivalency. In 1975 930 people were served. Projections for 1980 suggest 1200 will participate in the established courses.

Furthermore, manpower programs are offered under CETA (Comprehensive Employment and Training Act of 1973) to serve unemployed and underemployed persons in the counties of Region 3. Title I provides work experience for unemployed, underemployed and economically disadvantaged adults and youth through temporary entry-level jobs and counseling. Title II provides support for public service employment jobs for those with previous employment or post-secondary education. Title VI is an emergency measure to alleviate critically high unemployment through public service employment.

4. Region 3's PLAN to Achieve the Goal of Adult Level Occupational Education, as set forth on page 25

Region 3's Planning Goal is:

> To increase articulation between agencies offering adult occupational education.

Priorities to be Achieved

- The articulation of all units offering adult education will be increased by 1980.
- Adult occupational education will be expanded to meet the needs of adults and employers.

Strategies and Proposals to Accomplish These Goals and Objectives by 1980*

- Encourage the provision of retraining programs for all instructors in these program areas.
- Work to provide up-to-date information on changing requirements and mandates of state regulatory agencies.

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*As developed and proposed at Region 3 workshop, June 30, 1976 and modified by the Planning Committee, September 28, 1976

-Develop flexible delivery systems to provide upgrading for employees, and to meet the changing skills and personnel needs of employers.

-Consider the mobility of adults in all retraining programs, so that they can relocate successfully.

-Develop upgrading and retraining programs for those teaching adult education courses in order to help improve adult education generally.

-Provide adult education agencies with information to keep abreast of changing state regulatory mandates.

-Make particular certification and licensing requirements known to those dealing with adult education.

-Consider awarding credit for courses taken in business, agency and other non-academic organizations in which adults work, under the 1976 ACE/State Education Department developed project sponsored by the Carnegie Corporation and the HEW Fund for the Improvment of Post-Secondary Education.

-Seek the revision of guidelines for providing programs under CETA to permit such programs to follow a more realistic time frame.

-Study the advantages of a systems approach to Region 3 educational resources for adults.

-Establish a clearing house for information on all occupational education adult programs in the Region.

-Improve the flexibility of the adult occupational education delivery system and the utilization of all available facilities by providing guaranteed higher education assistance loans.

IV. PROPOSED MONITORING AND EVALUATION PLAN FOR REGION 3

IV. PROPOSED MONITORING AND EVALUATION PLAN FOR REGION 3

1. On or before the conclusion of the third and fifth year, the Executive Committee will appoint a review team to evaluate the progress of Region 3.

2. As the need arises and on a continuing basis, the Executive Committee may conduct special meetings of Region 3 representatives to modify this plan.

3. The State Education Department will be advised of the findings of the evaluation team.

4. June, 1978, the State Education Department (Assistant Commissioner for Occupational Education) will receive a progress report regarding the status of the five year projection mission and goals.

5. Six months prior to the end of the planning cycle a report will be submitted to all institutions in Region 3 and the State Education Department reviewing the progress of Region 3 with initial recommendations for the next five year plan.

2

V. SUPPORTING DOCUMENTATION

TABLE I

Region 3

Grades 1-8 School Enrollment, 1975-1980 Estimated

A. Public Schools

	School Districts	1975	1980** Estimated	% of Change
Dutchess	15	31,739		
Orange	17	34,918		
Putnam	6	10,923		
Rockland	11	34,980		
Sullivan	10	7,662		
Ulster	10	20,658		
Westchester (Yonkers only)	50	93,386 (15,715)		
Region 3 Total	119	234,266	232,136**	-0.9%
Schools	603			

B. Non-Public Schools

Schools	268	20,745	32,114

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*State Education Department. Survey of Enrollment, Staff, and School Housing, Fall 1975

**Data from State of New York, Education Department (Mr. Grady)

TABLE 2

Region 3

Number & Percentage of Students in Occupational Education, 1975
SECONDARY LEVEL
(Cooperative Ed. Included)

Program Area	Yonkers	Public LEA's	BOCES	TOTAL	Yonkers	Non-Public LEA's	BOCES	Total	Grand Total #	%
Agriculture Ed.	13	231	496	740	0	6	45	51	791	1.8
Distributive Ed.	30	1489	124	1643	2	88	10	100	1743	4.1
Health Occupations	22	190	976	1188	1	5	63	69	1257	2.9
Home Economics Ed.	55	103	153	311	0	4	44	48	359	0.8
Business/Office	2240	24701	695	27636	118	1228	39	1385	29021	67.5
Technical	169	59	176	404	4	0	8	12	416	1.0
Trade/Industry/Service	910	2409	5445	8762	77	68	525	670	9432	22.0
Grand Totals	3439	29180	8065	40684	202	1399	734	2335	43019	

31.8% of
all Public
Sec. School
Enrollment

Source: New York State Education Department Computer Printout of: Secondary Occupational Education Enrollments, 1975-76.

TABLE 3

Region 3
Population By Age Groups, 1970 to 1980

1970	15-19 H.S.	20-24 College	25-34 Adult	35-54 Adult	All Ages	% of Total
Dutchess	18208	15811	30945	51029	222295	12.2
Orange	20009	16444	27093	49032	221657	12.2
Putnam	4303	2799	8131	12739	56696	3.1
Rockland	19152	12542	29741	59410	229903	12.6
Sullivan	4660	3578	5817	12099	52580	2.9
Ulster	12642	11027	17093	31228	141241	7.8
Westchester	74663	57392	103850	231396	894406	49.2
Region 3	153637	119593	222670	446933	1818778	
1975						
Dutchess	22744	19161	35533	54076	233107	12.2
Orange	25935	23069	32001	52410	244360	12.8
Putnam	6509	4453	10153	16041	67917	3.6
Rockland	27617	19110	34690	65991	252777	13.3
Sullivan	5384	5135	8896	13149	61553	3.2
Ulster	15601	14601	22625	33919	156357	8.2
Westchester	80616	70794	129571	212988	889612	46.7
Region 3	184406	156323	273469	448574	1905683	
1980						
Dutchess	24928	24338	40427	59722	247884	12.4
Orange	28611	31068	41947	57611	273835	13.7
Putnam	8700	6608	12398	20579	79214	4.0
Rockland	30580	27559	45223	71959	279223	14.0
Sullivan	5866	5650	12131	14337	67928	3.4
Ulster	16412	17790	29762	37625	171112	8.5
Westchester	76520	76439	152868	204736	880645	44.0
Region 3	191617	189452	334756	466569	1999841	

Source: State of New York, Economic Development Board. Preliminary Revised Population Projections by Age and Sex for New York State Counties, (December, 1975)

TABLE 4

REGION 3
% OF POPULATION CHANGE 1970-1980 AND 1975-1980

10 Year Change 1970 -1980	15-19 H.S.	20-24 College	25-34 Adult	35-54 Adult	All Ages
Dutchess	36.9	53.9	30.6	17.0	11.5
Orange	43.0	89.0	54.8	17.5	23.5
Putnam	102.2	136.0	52.5	61.5	39.7
Rockland	57.7	119.7	52.1	21.1	21.5
Sullivan	25.9	57.9	108.5	18.5	29.2
Ulster	29.8	61.3	74.1	20.5	21.1
Westchester	2.5	33.1	47.2	-11.5	-1.5
Region 3	24.7	58.4	50.3	4.4	10.0
5 Year Change 1975-1980					
Dutchess	9.6	27.0	13.7	10.4	6.3
Orange	10.3	34.7	31.0	9.9	12.0
Putnam	33.7	48.4	22.1	28.3	16.6
Rockland	9.7	44.2	30.4	9.0	10.5
Sullivan	9.0	10.2	36.4	9.0	10.4
Ulster	5.2	21.8	31.5	10.9	9.4
Westchester	-5.1	8.0	18.0	-3.9	-1.0
Region 3	3.9	21.1	22.4	4.0	4.9

Source: Based on State of New York, Economic Development Board. Preliminary Revised Population Projections by Age and Sex for New York State Counties, (December, 1975)

TABLE 5

REGION 3

Projections

Approx. Distribution of Occupational Education
(Public & Non-Public)

SECONDARY LEVEL

	Approx. 1975	Est. 1980 (Based on % of 15 to 19 age population)
Dutchess	5290	5790
Orange	6060	6680
Putnam	1500	2000
Rockland	6450	7070
Sullivan	1290	1400
Ulster	3650	3800
Westchester	18800	18000
Region 3	43040	44740 = 3.9% increase

The 1975 total was taken from the State Education Dept.'s computer print-outs and proportioned to the counties according to the present % of 15 to 19 year olds in the counties. The 1975-1980 increase of 3.9% agrees with the % increase of 15 to 19 age population in Region 3 as estimated in:

> State of New York, Economic Development Board, Preliminary Revised Population by Age & Sex for New York State Counties (December, 1975)

The 15 to 19 age equates approximately to high school age. The State's projected population figures include increases (or decreases) due to natural growth and to immigration into (or emmigration from) the area.

However, the 3.9% increase for the Region does not agree with the estimated enrollment of grades 9 to 12 expected by 1980 in the public secondary schools. Existing data for these grades suggest only a very modest increase in all of the counties of the Region - except for Westchester where over a 10% decrease is suggested, thus making an over-all Region 3 decrease of 5.7%. We have chosen to use the 3.9% regional increase based on age - which also involves a decrease in Westchester County - in the belief that this modest change would probably be more valid for occupational programs than the projected grade data and which excludes in-migration. Even so, the 44740 total of occupational education secondary level students for Region 3 in 1980 is a status quo figure because it depicts almost the same ratio of occupational students to all secondary students as in 1975.

Furthermore, the total increase for the Region (and for most counties) is so small that it is almost negligible on an annual basis. Thus, the above projections anticipate the no-growth status widely predicted for after 1980.

TABLE 6

REGION 3

EMPLOYMENT OUTLOOK FOR 1980

The following employment outlook predictions were compiled from the informed opinion of Region 3's county planners, personnel directors in industry, State Employment Service personnel, and educators at the secondary and post-secondary levels with some major responsibility for occupational education... who responded to a Region 3 planning request for such information. The New York State Employment Outlook 1980 was used as a guide. Therefore, the predictions can be translated, with the help of the following table, into percentages of increase or decrease.

	Increase	Decrease
Very rapid	+40% or more	-40% or more
Rapid	+30% to 39.9%	-30% to 39.9%
Moderate	+15% to 29.9%	-15% to 29.9%
Slow	+ 5% to 14.9%	- 5% to 14.9%
Little or no change	+ 0% to 4.9%	- 0% to 4.9%

Occupation	1980 Region 3 Employment Outlook	Area Differences by County*
Professional, technical, Kindred	moderate increase	
Engineers, science technicians	moderate increase	
Ag., biolog. tech. exc. health	moderate increase	
Chemical technicians	little or no change	Slow decline (W)
Draftsmen	SLOW INCREASE	
Electrical, electronic tech.	moderate increase	
Industrial engineering tech.	LITTLE OR NO CHANGE	
Mechanical engineering tech.	slow increase	
Surveyors	slow increase	
Engineering, science tech., nec	very rapid increase	
Medical workers, exc. tech.	moderate increase	
Dietitians	moderate increase	
Registered nurses	moderate increase	
Therapists	very rapid increase	
Health technol. and tech.	very rapid increase	
Clinical lab technol., tech.	very rapid increase	
Dental hygienists	very rapid increase	
Health record technol., tech.	very rapid increase	
Radiologic technol., tech.	moderate increase	
Therapy assistants	MODERATE INCREASE	
Other health technol., tech.	MODERATE INCREASE	
Technicians, exc. health	rapid increase	
Airplane pilots	slow increase	
Air traffic controllers	moderate increase	
Embalmers	SLOW DECLINE	
Flight engineers	moderate increase	
Radio operators	slow increase	
Other technicians exc. health	MODERATE INCREASE	

* D=Dutchess, O=Orange, P=Putnam, R=Rockland, S=Sullivan, U=Ulster and W=Westchester

Continued.

Computer specialists	moderate increase	slow increase(S)
Computer programmers	moderate increase	slow increase(S)
Computer systems analysts	rapid increase	slow increase(S)
Other computer specialists	rapid increase	slow increase(S)
Writers, artists, entertainers	slow increase	
Photographers	little or no change	moderate increase (W)
Other professional, technical	moderate increase	
Farm management advisors	moderate decline	
Foresters, conservationists	slow increase	
Home management advisors	moderate decline	
Operations, systems research	very rapid increase	
Personnel labor relations	rapid increase	
Research workers, nec	very rapid increase	
Recreation workers	rapid increase	
Social workers	rapid increase	
Managers, officials, proprietors	slow increase	
Buyers, sales, loan managers	slow increase	
Bank, financial managers	moderate increase	
Creditmen	little or no change	
Buyers, shippers, farm prod.	moderate decline	
Buyers, wholesale, retail	slow increase	
Purchasing agents, buyers, nec	slow increase	
Sales managers, retail trade	moderate increase	
Sales managers, exc. ret. trade	slow increase	
Administrators, publ. inspector	moderate increase	
Construction inspectors, public	moderate increase	
Inspectors, exc. construct. public	moderate increase	
Postmasters and mail super.	moderate decline	
Other managers, off'ls, props.	slow increase	
Funeral directors	moderate	
Mgrs., superintendants, bldg.	rapid increase	
Office managers, nec	moderate increase	
Officers, pilots, pursers, ship	moderate decline	
Restaurant, cafe, bar managers	LITTLE OR NO CHANGE	
Other mfgrs., administrators	slow increase	
Sales workers	MODERATE INCREASE	
Advertising agents, salesmen	moderate increase	
Auctioneers	slow decline	
Demonstrators	slow decline	
Hucksters and peddlers	little or no change	
Insurance agents, brokers, etc.	MODERATE INCREASE	
Real estate agents, brokers	slow increase	
Stock and bond salesmen	little or no change	
Sales repres., mfg.	slow decline	
Sales repres, wholesale trade	little or no change	
Sales clerks, retail trade	MODERATE INCREASE	moderate increase (REW)
Salesmen, retail trade	moderate increase	
Salesmen, serv. and construction	moderate increase	

Continued....

Clerical workers	slow increase	moderate increase (R&W)
Stenographers, typists, secretaries	moderate increase	
Secretaries, legal	rapid increase	
Secreteries, medical	moderate increase	
Secretaries, other	moderate increase	
Stenographers	SLOW INCREASE	
Typists	slow increase	
Office machine operators	little or no change	
Bookkeeping, billing operators	slow decline	little or no change(R, S& W)
Calculating machine operator	moderate decline	
Computer, peripheral equipment	very rapid increase	
Duplicating machine operators	moderate increase	
Keypunch operators	moderate decline	little or no change(S&W)
Tabulating machine operators	very rapid increase	little or no change(S)
Other office machine operators	moderate increase	little or no change(S)
Other clerical workers	slow increase	
Bank tellers	slow increase	moderate increase (R)
Billing clerks	moderate increase	
Bookkeepers	very little change	
Cashiers	slow increase	
Clerical assist. soc. welfare	very rapid increase	
Clerical supervisors, nec	slow increase	
Collectors, bill and account	slow increase	
Counter clerks, except food	moderate increase	
Dispatchers, starters, vehicle	moderate increase	
Enumerators and interviewers	moderate decline	
Estimators, investigators, nec	slow increase	
Expeditrs., prod. controllers	very little change	
File clerks	very little change	
Insurance adjust., examiners	slow increase	moderate increase (W)
Library attendants, assistants	SLOW INCREASE	
Mail carriers, post office	very little change	
Mail handlers, exc. post office	slow increase	
Messengers and office boys	moderate decline	
Meter readers, utilities	very little change	
Payroll, time keeping clerks	slow increase	
Postal clerks	very little change	
Proofreaders	very little change	
Real estate appraisers	slow increase	
Receptionists	slow increase	
Shipping, receiving clerks	slow decline	little or no change (w)
Statistical clerks	very little change	
Stock clerks. store keepers	slow increase	
Teachers aides, exc. monitors	LITTLE OR NO CHANGE	slow increase (S)
Telegraph messengers	very rapid decline	
Telegraph operators	very rapid decline	
Telephone operators	slow decline	
Ticket station, express agents	LITTLE OR NO CHANGE	
Weighers	slow decline	
Misc. clerical workers, nec	very rapid increase	slow increase (D,S&W)

Continued....

Craftsmen, foreman, kindred	little or no decline	
Construction craftsmen	little or no increase	slow decline (S)
Carpenters	little or no increase	slow decline (S)
Carpenters apprentice	slow increase	
Brickmasons and Stonemasons	little or no increase	
Brick, stonemason apprentice	slow decline	
Bulldozer operators	little or no increase	
Cement and Concrete finishers	moderate increase	
Electricians	slow increase	
Electricians apprentice	slow increase	
Excavating, grading, mach. op.	little or no increase	
Floor layers, exc. tile setter	little or no increase	
Painters, construction, maint.	LITTLE OR NO CHANGE	
Painter apprentice	LITTLE OR NO CHANGE	
Paperhangers	LITTLE OR NO CHANGI	
Plasterers	slow decline	
Plasterer apprentice	rapid decline	
Plumbers and Pipefitters	slow increase	moderate increase (D&W
Plumbers, pipefitters apprentice	slow increase	moderate increase (D)
Roffers and slaters	moderate increase	moderate increase (D)
Structural metal craftsmen	little or no increase	
Tilesetters	slow decline	
Foremen, nec	little or no increase	slow increase (W)
Metalworking craftsmen exc. mech.	slow decline	
Blacksmiths	slow decline	little or no change (R)
Boilermakers	slow decline	little or no change (R)
Heat treaters, annealrs, etc.	moderate decline	
Forgemen and hammermen	slow decline	little or no change (R)
Job and die setters, metal	slow increase	
Machinists	moderate decline	
Machinist apprentice	slow decline	
Millwrights	slow decline	little or no change (R &W)
Molders, metal	moderate decline	
Molders, apprentice	very rapid decline	
Pattern and model makers	moderate decline	
Rollers and finishers, metal	slow decline	
Sheet metal workers, tinsmiths	moderate decline	slow increase (W)
Sheet metal apprentice	slow decline	slow increase (R)
Tool, diemakers	moderate decline	
Tool, diemaker apprentice	slow increase	
Mechanics, repairmen, installers	slow increase	moderate increase (R)
Air cond., heating, refrig.	very rapid increase	moderate increase (S)
Aircrafts	moderate increase	
Auto Accessories installers	slow decline	slow increase (R & W)
Auto body repairmen	slow increase	moderate increase (D&W)
Auto mechanics	slow increase	moderate increase (D&W)
Auto mechanics, apprentice	slow increase	moderate increase (W)
Data processing machine repair.	very rapid increase	
Farm implement	slow decline	
Heavy equip. mech., incl. diesel	little or no increase	
Household appliance mechanics	moderate increase	
Loom fixers	rapid decline	
Office machine repairmen	slow increase	moderate increase (R)
Radio, television repairmen	little or no increase	slow increase (R)
Railroad, car shop repairmen	slow increase	
Mechanics, exc. auto appren.	slow increase	
Other mechanics and repairmen	slow increase	

Continued

Printing trades craftsmen	moderate decline
Bookbinders	moderate decline
Compositors and Typesetters	moderate decline
Electrotypers, stereotypers	rapid decline
Engravers, exc.photoengravers	moderate decline
Photoengravers, lithographers	little or no increase/ slow increase (W)
Pressmen and Plate printers	slow decline
Pressmen apprentice	little or no decline
Printing apprentice, exc.press	very rapid decline
Transportation, pub. util. craft,	little or no increase
Electric power linemen, cablemen	slow increase
Locomotive engineers	moderate decline
Locomotive firemen	very rapid decline
Power station operators	slow increase
Telephone installers, repairmen	slow increase
Telephone linemen, splicers	slow decline
Other craftsmen, kindred worker	slow decline
Bakers	moderate decline
Cabinetmakers	LITTLE OR NO CHANGE
Carpet installers	slow increase
Cranemen, derrickmen, hoistmen	slow decline
Decorators, window dressers	little or no decline
Dental laboratory technician	moderate increase
Furniture and wood finish	moderate decline
Furriers	very rapid decline
Glaziers	slow increase
Inspectors, log and lumber	moderate decline
Inspectors, other	little or no decline
Jewelers and watchmakers	moderate decline
Millers, grain, flour, feed	little or no increase
Motion picture projectionists	slow decline
Opticians, lens grinder, polisher	slow increase
Piano, organ tuners, repairmen	slow decline
Shipfitters	very rapid decline
Shoe repairmen	rapid decline
Sign painters and letterers	slow decline
Stationary engineers	slow decline
Stonecutters, stone carvers	slow decline
Tailors	rapid decline
Upholsterers	slow decline
Craftsmen, kindred workers, nec	moderate decline
Crafts apprentice, nec	slow decline
Operatives	slow decline
Operatives, exc. transport	moderate decline
Semiskilled metalworking	little or no decline
Drill press operatives	slow decline
Furnacemen, smeltermen, pourers	slow decline
Grinding machine operatives	little or no decline
Heaters, metal	moderate decline
Lathe, milling mach. operatives	slow decline
Metal platers	moderate decline
Other precision mach. operator	slow increase
Punch stamping	slow decline
Solderers	moderate decline
Welders and flame cutters	slow increase

Continued....

Semiskilled textile operatives	rapid decline	
Carding, lapping, combing	very rapid decline	
Knitters, loopers, and toppers	rapid decline	
Spinners, twisters, winders	moderate decline	
Weavers	rapid decline	
Other textile operatives	rapid decline	
Semiskilled packing, inspecting	slow decline	
Checkers, examiners, etc. mfg.	slow decline	
Graders and sorters, mfg.	moderate decline	
Meat wrappers, retail trade	moderate increase	
Packr, wrapper, exc.meat, prod.	slow decline	
Prod. grdr., packr., ex. fact, farm	slow decline	
Other operatives, exc. transport	moderate decline	
Asbestos, insulation worker	slow decline	
Assemblers	slow decline	
Blasterers and powdermen	slow decline	
Bottling, canning operatives	moderate decline	
Chainmen, rodmen, axmen surveying	slow decline	
Clothing ironers and presser	rapid decline	
Cutting operatives, nec	moderate decline	
Drillers, earth	moderate decline	
Dry wall installers, lathrs	moderate increase	little or no change (D&R)
Dyers	moderate decline	
Fillers, polishrs, sandrs, buffers	moderate decline	little or no change (U&W)
Garage workers, gas stat. atten.	slow increase	little or no change (D&R)
Laundry, dry clean op., nec	slow decline	little or no change (R)
Meat cutters, butchers, exc.mfg.	LITTLE OR NO CHANGE	
Meat cutters, butchers	LITTLE OR NO CHANGE	
Milliners	very rapid decline	
Mine operatives, nec	moderate decline	little or no change (U)
Mixing operatives	moderate decline	little or no change (U)
Oilers, greasers, exc. auto	rapid decline	little or no change (U)
Painters, mfg. articles	moderate decline	little or no change (U)
Photographic process workers	slow increase	
Riveters and fasteners	moderate decline	
Sailors and deckhands	very rapid decline	
Sawyers	moderate decline	
Sewers and stitchers	LITTLE OR NO CHANGE	
Shoemaking machine operatives	very rapid decline	
Stationary firemen	moderate decline	little or no change (U)
Winding operatives nec	little or no increase	
Machine oper. misc, specif.	slow decline	
Operatives, nec	moderate decline	
Transport equipment operatives	little or no decline	
Boatmen and canalmen	rapid decline	
Bus drivers	moderate increase	
Conductors, motormen, urban rail	slow increase	
Delivery and routemen	little or no increase	slow increase (W)
Fork lift, tow motor operator	slow decline	little or no change (R &W)
Motormen, mine, fact, logging	moderate decline	
Parking attendants	slow increase	
Railroad brakemen	moderate decline	
Railroad switchmen	little or no increase	
Taxicab drivers, chauffeurs	little or no decline	
Truck drivers	SLOW INCREASE	

Continued....

Service workers	MODERATE INCREASE	
Cleaning service workers	slow increase	
Chambermaid, maid, exc. priv. household	slow increase	
Cleaners and charwomen	little or no increase	
Janitors and sextons	moderate increase	
Food Service workers	SLOW INCREASE	
Bartenders	SLOW INCREASE	
Busboys	LITTLE OR NO CHANGE	
Cooks, exc. private	SLOW INCREASE	
Dishwashers	little or no decline	
Food counter, fountain wrkrs.	SLOW INCREASE	
Waiters	SLOW INCREASE	
Food wrkrs, nec, exc. private	slow increase	
Health service workers	moderate increase	
Dental assistants	slow increase	
Health aides, except nursing	very rapid increase	
Health trainees	very rapid increase	
Lay midwives	SLOW INCREASE	
Nurses aides, orderlies	moderate increase	
Practical nurses	very rapid increase	
Personal service workers	little or no decline	(w)
Airline stewardesses	rapid increase	little or no change
Atten, recreation, amusement	slow increase	
Baggage portrs and bellhops	very rapid decline	
Barbers	LITTLE OR NO CHANGE	
Boarding, lodging housekeepers	very rapid decline	
Child care wrkrs, exc. private	LITTLE OR NO CHANGE	
Hairdressers, cosmetologists	slow increase	
Housekeepers, exc. private	moderate increase	
Personal service apprentice	LITTLE OR NO CHANGE	
School monitors	LITTLE OR NO CHANGE	
Ushers, recreation, amusement	slow decline	
Welfare service aides	very rapid increase	
Protective service workers	moderate increase	
Crossing guard, bridge tenders	slow increase	
Firemen, fire protection	rapid increase	
Guards and watchmen	slow increase	
Marshals and constables	rapid increase	
Policemen and detectives	moderate increase	
Sheriffs and baliffs	SLOW INCREASE	
Private household workers	moderate decline	
Child care workers	moderate decline	
Cooks, private	moderate decline	
Housekeepers, private	moderate decline	
Laundresses, private	very rapid decline	
Maids, servants private	moderate decline	

Continued....

Laborers, except farm	little or no decline	
Animal caretakers, exc. farm	LITTLE OR NO CHANGE	
Carpenters, helpers	rapid decline	little or no change (U)
Const. Labr., exc. carp. help	slow decline	
Fishermen and oystermen	moderate decline	
Freight, material handlers	slow decline	
Garbage collectors	moderate increase	
Gardeners, groundkeepr, exc. farm	moderate increase	
Lumbermen, raftsmn, woodchopper	moderate decline	
Stock handlers	slow increase	
Vehicle washr, equip. cleaners	LITTLE OR NO CHANGE	
Warehousemen, nec	LITTLE OR NO CHANGE	
Other laborers	LITTLE OR NO CHANGE	
Farmers and farm workers	slow decline	
Farmers and farm managers	slow decline	
Farmers (owners and tenants)	slow decline	
Farm managers	slow decline	
Farm laborers, farm foremen	slow decline	
Farm foremen	SLOW DECLINE	
Farm laborers wage workers	SLOW DECLINE	
Farm laborers, unpaid family	slow decline	
Farm laborers, self-employed	SLOW DECLINE	

TABLE 7

REGION 3

NUMBER EMPLOYED IN SELECTED OCCUPATIONS*, 1970

		Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	West-chester	Region 3	% of Total Employed
PROFESSIONAL, TECHNICAL, & KINDRED WORKERS	TOTAL	20522	11718	3944	17913	2704	10252	78875	145928	21.3
Engineers, technical		3842	702	348	1728	138	1029	5999	13786	2.0
Physicians, Dentists & related practitioners		552	534	100	1237	136	285	6096	8940	1.3
Medical & other health workers, except practitioners		1813	1609	351	1650	374	951	6854	13602	2.0
Teachers, Elemen. & Secondary		3413	3188	956	4105	852	2259	14836	29609	4.3
Technicians, ex. Health		2173	1082	302	1014	99	821	3293	8784	1.3
Other professional workers		8729	4603	1887	8179	1105	4907	41797	71207	10.4
SALARIED MANAGERS & ADMINISTRATORS, EXCEPT FARM.	TOTAL	5272	5700	1584	8570	1426	3765	41998	68315	10.0
Manufacturing		1650	979	332	2077	70	963	10664	16735	2.4
Retail trade		1144	1501	350	1617	390	924	6826	12752	1.9
Other Industries		2478	3220	902	4876	966	1878	24508	38828	5.7
SALES WORKERS	TOTAL	4452	4872	1332	7826	1244	3203	33219	56148	8.2
Manufacturing & wholesale trade		665	802	327	2313	160	505	8431	13203	1.9
Retail trade		2760	3134	747	3819	769	2027	15661	28917	4.2
Other sales workers		1027	936	258	1694	315	671	9127	14028	2.1
CLERICAL & KINDRED WORKERS	TOTAL	13549	13105	3698	15210	2885	8329	78672	135448	19.8
Bookkeepers		1446	1539	362	1837	492	1095	8103	14874	2.2
Secretaries, Stenographers and Typists		4133	3556	998	4670	754	2058	25963	42132	6.2
Other clerical workers		7970	8010	2338	8703	1639	5176	44606	78442	11.5
CRAFTSMEN, FOREMEN & KINDRED WORKERS	TOTAL	10198	11645	3758	10675	2848	7074	40223	86421	12.6
Automobile mechanics & body repairmen		896	1272	339	836	304	839	3710	8196	1.2
Mechanics & repairmen, except auto.		1515	1457	467	1358	312	917	4905	10931	1.6
Machinists		291	204	84	248	11	230	796	1864	0.3
Metal craftsmen, except mechanics and machinists		581	364	120	411	37	307	1462	3282	0.5
Carpenters		903	1025	530	741	437	676	3022	7334	1.1
Construction craftsmen except carpenters		2012	2371	759	2403	650	1533	8248	17976	2.6
Other craftsmen		4000	4952	1459	4678	1097	2572	18080	36838	5.4

Continued........

Number Employed in Selected Occupations*, 1970 (Continued)

	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	West-chester	Region 3	% of Total Employed
OPERATIVES, EXCEPT TRANSPORTATION TOTAL	8187	11454	1281	6740	1245	6778	26909	62594	9.2
Durable goods manufacturing	3980	3329	527	2018	194	3160	9063	22271	3.3
Nondurable goods manufacturing	2364	5552	242	2771	287	2029	8795	22040	3.2
Nonmanufacturing industries	1843	2573	512	1951	764	1589	9051	18283	2.7
TRANSPORT EQUIPMENT OPERATIVES TOTAL	2495	3606	871	2419	1085	2158	10038	22672	3.3
Truck Drivers	1108	1748	351	846	512	1019	3209	8793	1.3
Other transport equipment operatives	1387	1858	520	1573	573	1139	6829	13879	2.0
LABORERS, EXCEPT FARMERS TOTAL	2743	3138	882	2341	813	2212	11773	23902	3.5
Construction laborers	679	870	218	536	255	521	2370	5449	0.8
Freight stock & materials handlers	886	991	261	947	123	597	3957	7762	1.1
Other laborers, except farm	1178	1277	403	858	435	1094	5446	10691	1.6
SERVICE WORKERS, EXCEPT PRIVATE HOUSEHOLD TOTAL	11612	10515	2152	10924	4144	6157	36691	82195	12.0
Cleaning service workers	1776	2133	373	1476	838	1364	7420	15380	2.2
Food service workers	3084	3188	535	2497	1734	2311	8609	21958	3.2
Health service workers	2948	1621	307	2575	270	555	4707	12983	1.9
Personnel service workers	1080	1163	226	1119	467	698	4878	9631	1.4
Protective service workers	1574	1635	527	2675	497	779	7234	14921	2.2
Other service workers	1150	775	184	582	338	450	3843	7322	1.1
GRAND TOTALS	79030	75753	19502	82618	18394	49928	358398	683623	

*Source: State of New York, Department of Labor. Statistics on Minorities and Women, April, 1976
(This data excludes farm administrators and private household workers, etc.)

TABLE 8

Region 3

Number of Disadvantaged - Handicapped Students in Occupational Education, 1975
SECONDARY LEVEL
(Yonkers, LEA'S & BOCES)

Program Area	Disadvantaged			Handicapped		
	Public	Non Public	Total	Public	Non Public	Total
Agriculture Ed.	58	1	59	40	51	91
Distributive Ed.	218	11	229	70	100	170
Health	134	5	139	71	69	140
Home Economics Ed.	33	11	44	26	48	74
Business/Office	2161	105	2266	407	1385	1792
Technical	28	2	30	69	12	81
Trade/Industry/Service	1537	83	1620	662	670	1432
Grand Totals	4169	218	4387	1345	2335	3680
	3.3% of all public secondary school students			80.7% Approx. of all Sec. Handicapped		

Source: New York State Education Department, Computer Printout of: Secondary Occupational Education Enrollments, 1975-76.

TABLE 9

Region 3

Occupational Education Completers Continuing Their Education, 1975
SECONDARY LEVEL

Program Area	Continuing Their Occup. Ed.	Continuing Their Ed.	Total	% of all completers (12026)
Agricultural Ed.	16	14	30	.24%
Distributive Ed.	26	18	44	.36
Health Occupations	57	12	69	.57
Home Economics Ed.	26	6	32	.26
Business/Office	248	217	465	3.86
Technical	21	4	25	.20
Trade/Industry/Service	227	68	295	2.4
Grand Total	621	339	960	
	64.7%	35.3%		
Percent of All Completers (12026)	5.2%	2.8%	8.0%	

Source: New York State Education Department Computer Printout of: Secondary Occupational Education Enrollments, 1975-76.

TABLE 10

Region 3

Number & Percentage of Students in Occupational Education, 1975
POST-SECONDARY LEVEL
(Cooperative Ed. Included)

Program Area	Full-Time				Part-Time			Grand Total	
	2 yr.	1 yr.	Total #	Total %	2 yr.	1 yr.	Total	#	%
Agriculture Ed.	79	43	122	0.9	13	1	14	136	0.9
Distributive Ed.	990	17	1007	11.2	251	114	365	1372	8.8
Health Occupations	1915	94	2009	21.6	1495	28	1523	3532	22.7
Home Economics Ed.	145	0	145	1.6	31	0	31	176	1.1
Business/Office	2616	157	2773	29.5	2109	137	2246	5019	32.3
Technical	1075	46	1121	12.1	583	45	628	1749	11.2
Trade/Industry/Service	2056	116	2172	23.2	1364	36	1400	3572	23.0
Grand Totals	8876	473	9349		5846	361	6207	15556	

Source: New York State Education Department, Computer Printout of: Post-Secondary Occupational Education Enrollments, 1975-76.

TENTATIVE

TABLE 11

Region 3

POST-SECONDARY - Public
Occupational Education Enrollment, 1975-1980

Total Region 3

1975

	All Credit Courses	Occupational Education #	Occupational Education %
Full-time	16226	9349	58
Part-time	15481	6207	40
FTE	21130	11200(est)	53

1980

	All Credit Courses	Occupational Education #	Occupational Education %
Full-time	20000(approx)	11600(approx)	58
Part-time	18700 "	7500 "	40
FTE	25500	13500	53
	21% increase over 1975	21% increase over 1975	

TABLE 12

Region 3

Number of Disadvantaged - Handicapped Students in Occupational Education, 1975
POST-SECONDARY LEVEL

Program Area	Disadvantaged Full-time & Part-time #	 %	Handicapped Full-time & Part-time #	 %
Agriculture Ed.	5	0.6	2	2.7
Distributive Ed.	92	10.4	11	14.7
Health	171	19.4	18	24.0
Home Economics Ed.	20	2.3	4	5.3
Business/Office	284	32.2	30	40.0
Technical	96	10.9	4	5.3
Trade/Industry/Service	215	24.4	6	8.0
Grand Totals	883		75	

Source: New York State Education Department Computer Print-out of: Post Secondary Enrollment 1975-76 (Occupational Ed.)

TABLE 13

Region 3

Number & Percentage of Students in Occupational Education, 1975
ADULT LEVEL
(Adult, Preparatory & Supplemental Included)

Program Area	Yonkers		LEA's		BOCES		Grand	Total
	Total	%	Total	%	Total	%	#	%
Agriculture Ed.	0	0	0	0	287	4.2	287	2.8
Distributive Ed.	0	0	215	8.0	172	2.5	387	3.4
Health Occupations	101	14.9	86	3.2	554	8.1	741	7.2
Home Economics Ed.	0	0	0	0	2	(.03)	2	(.01)
Business/Office	462	68.0	1857	68.7	1230	17.9	3549	34.6
Technical	0	0	0	0	18	.3	18	.2
Trade/Industry/Service	117	17.2	546	20.2	4618	67.1	5281	51.4
Grand Totals	680		2704		6881		10265	

Source: New York State Education Department Computer Print-outs of: Adult Enrollment and Adult Supplementary Enrollment (Occupational Ed.) 1975-76.

TABLE 14

Region 3

Number of Disadvantaged - Handicapped Students in Occupational Education, 1975

ADULT LEVEL

Program Area	Disadvantaged		Handicapped	
	#	%	#	%
Agriculture Ed.	6	0.6	0	0
Distributive Ed.	38	3.6	6	17.6
Health	146	14.0	0	0
Home Economics Ed.	2	0.2	0	0
Business/Office	464	44.5	16	47.1
Technical	0	0	0	0
Trade/Industry/Service	386	37.0	12	35.3
Grand Totals	1042		34	

Source: New York State Education Department Computer Print-outs of Adult Enrollment and Adult Supplementary Enrollment (Occupational Ed.) 1975-1976

(% may not add up due to rounding)

. Region 3 TABLE 15

Population & Employment, 1975

	Population (in thousands)	Civilian Labor Force (in thousands)	Unemployment (in thousands)	RAte of Unemploymnnt
Dutchess	233	97.8	5.8	5.9
Orange	244	105.1	9.7	9.3
Putnam	68	19.1	1.8	9.4
Rockland	253	79.5	6.9	8.7
Sullivan	62	27.9	3.2	11.4
Ulster	156	65.1	7.1	11.0
Westchester	890	353.6	32.8	9.3
Total	1,906	748.1	67.3	9.0

Sources:
New York State Office of Planning Services. Population Projections, December , 1975.

New York State, Department of Labor, Division of Research & Statistics, Bureau of Labor Market Information

TABLE 16

REGION 3

Non-Public Secondary Schools Occupational Education Enrollments

1975

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COUNTY	# SCHOOLS	OCCUP. ED COURSES	# STUDENTS IN COURSES (Occup. Ed)	# STUDENTS IN OCCUP. PROGRAM	% OCCUP. STUDENTS IN OCCUP. COURSES	% 1980*
Dutchess	6	17	396	178	45	↓
Orange	6	14	390	305	78	
Putnam	No private secondary schools					
Rockland	5	30	331	233	70	
Sullivan	No private secondary schools					
Ulster	3	14	42	14	33	
Westchester	27	98	3,287	2,397	73	
Region 3	47	173	4,446	3,127	70	

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*These non-public secondary schools indicate little or no change in the number of occupational education students in 1980.

TABLE 17

REGION 3

Public Schools - Handicapped

Secondary Level, Fall 1974

		% of All Students-Minority
Dutchess	239	9.7
Orange	268	12.4
Putnam	23	1.2
Rockland	69	10.1
Sullivan	14	12.5
Ulster	184	7.4
Westchester	869	19.5
Region 3	1666*	

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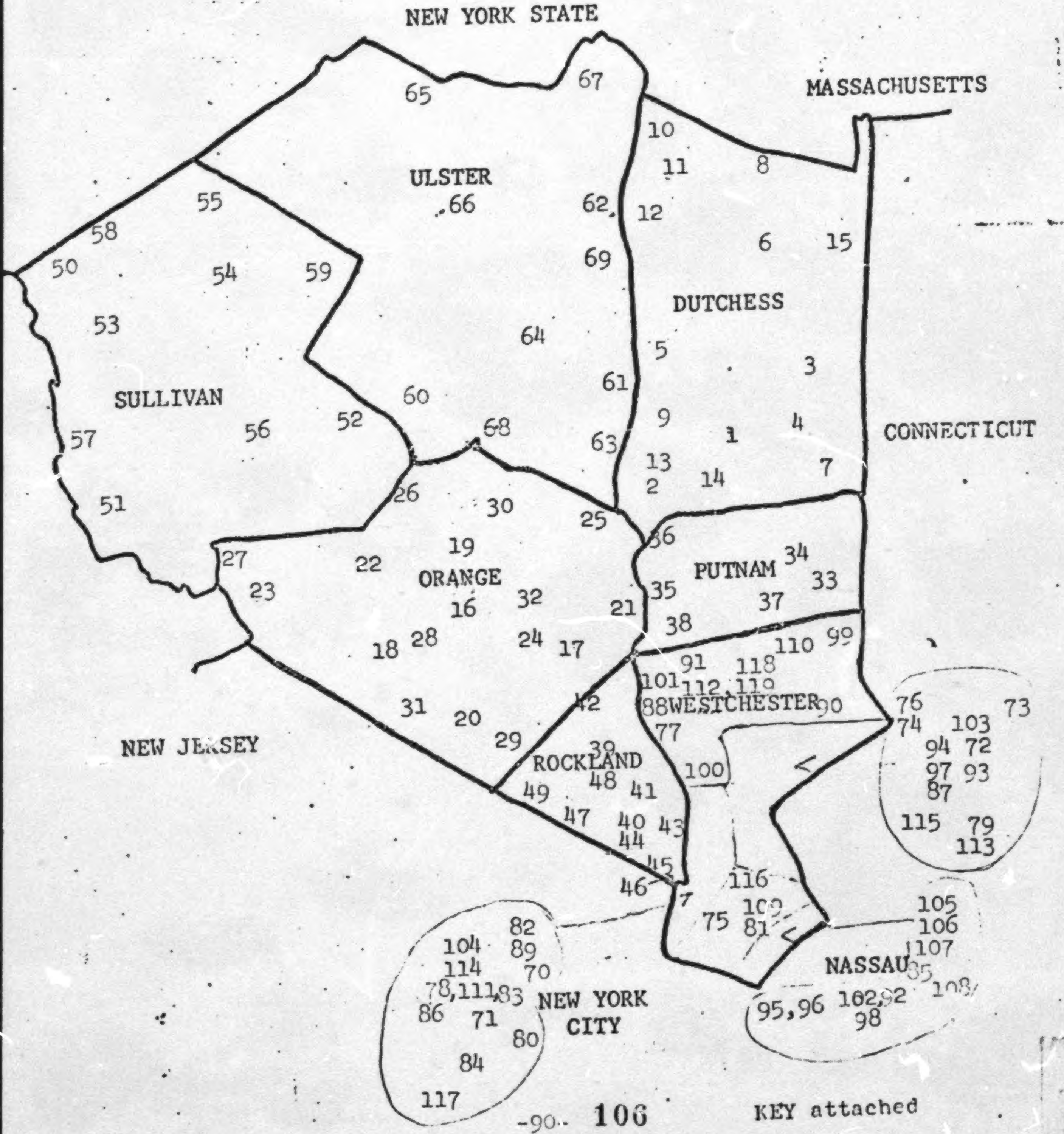
*From: New York State, State Education Department. Survey of Enrollment, Staff, and School Housing, Fall 1974

**From: Racial/Ethnic Distribution of Public School Students and Staff in New York State, 1974-75

EXHIBIT 1

MID-HUDSON REGION

Local Education Agencies - Public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KEY attached

DUTCHESS COUNTY

1 Arlington Central School
2 Beacon City Schools
3 Dover Union Free Schools
4 Hope Farm Union Free School
5 Hyde Park Central School
6 Millbrook Central School
7 Pawling Central School
8 Pine Plains Central School
9 Poughkeepsie City Schools
10 Red Hook Central Schools
11 Rhinebeck Central School
12 Rhinecliff Union Free School
13 Spackenkill Union Fr. School
14 Wappingers Central School
15 Webutuck Central School

ORANGE COUNTY

16 Chester Union Free School
17 Cornwall Central School
18 Florida Union Free School
19 Goshen Central School
20 Greenwood Lake Common School
21 James I. Oneill Central Schl
22 Middletown City Schools
23 Minisink Valley Central Schl
24 Monroe Woodbury Central Schl
25 Newburgh City Schools
26 Pine Bush Central School
27 Port Jervis City Schools
28 Sugarloaf Union Fr. Schl.
29 Tuxedo Union Free School
30 Valley Ctrl Schl-Montgomery
31 Warwick Valley Ctrl Schl
32 Washingtonville Central Schl

PUTNAM

33 Brewster Central School
34 Carmel Central School
35 Garrison Union Free Schl
36 Haldane C. S. of Philipstown
37 Mahopac Central School
38 Putnam Valley Cent. School

ROCKLAND COUNTY

39 Lakeside-Ramapo Un. Fr. Sch.
40 Nanuet Un. Fr. Sch.
41 New City Cent. Sch.
42 North Rockland Cent. Sch.
43 Nyack Union Free School
44 Pearl River Union Free Sch.
45 South Orangetown Cent. Sch.
46 Sparkill Union Free Sch. Dis
47 Spring Valley Cent Sch
48 Merrill L. Colton School
49 Suffern Central School

SULLIVAN COUNTY

50 Delaware Valley Central Sch
51 Eldred Central School
52 Fallsburgh Central School
53 Jeffrsnvle Youngsvle C. S.
54 Liberty Central School
55 Livingston Manor Cent. Sch.
56 Monticello Central School
57 Narrowsburg Central School
58 Roscoe Central School
59 Tri Valley Central School

ULSTER

60 Ellenville Central School
61 Highland Central School
62 Kingston City Schools
63 Marlboro Central School
64 New Paltz Central School
65 Onteora Central School
66 Rondout Valley Central Sch.
67 Saugerties Central School
68 Wallkill Central School
69 West Park Union Free School

WESTCHESTER

70 Abbott House Un. Fr. Sch.
71 Ardsley Union Free School
72 Armonk Central School
73 Bedford Central School

WESTCHESTER COUN. CONT'D

74 Briarcliff Manor Un. FR. Sch
75 Bronxville Union Free School
76 Chappaqua Central School
77 Croton Harmon Un. Fr. Sch.
78 Dobbs Ferry Union Free Sch.
79 Eastchester Union Free Sch.
80 Echo Hills Union Free Sch.
81 Edgemont Un Fr Sch-Greenburg
82 Elmsford Union Free School
83 Greenburgh Central School
84 Greenburgh-Graham School
85 Harrison Central School
86 Hastings on HUdson U.F.S.
87 Hawthorne Knolls U.F.S.
88 Hendrick Hudson Cent. Sch.
89 Irvington U.F.S.
90 Katonah Lewisboro U.F.S.
91 Lakeland Cent Sch of Shrub
92 Mamaroneck U.F.S.
93 Mount Pleasant-Blythedale U
94 Mount Pleasant-Cottage UFS
95 Mount Vernon City Schools
96 Longfellow School
97 Mt. Pleasant Central School
98 New Rochelle City Schools
99 North Salem Central School
100 Ossining UFS
101 Peekskill City Schools
102 Pelham Union Free School
103 Pleasantville UFS
104 Pocantico Hills Cent. Sch.
105 Port Chester-Rye UFS
106 Ridge Street UFS
107 Rye City Schools
108 Rye Neck Union Free School
109 Scarsdale Union Free School
110 Somers Central School
111 St. Christopher UFS
112 St. Peters UFS
113 Tuckahoc Union Free School
114 UFS of the Tarrytowns
115 Valhalla Union Free School
116 White Plains City SChools
117 Yonkers City Schools
118 Yorktown Central School
119 Yorktown-Wiltwyck UFS

EXHIBIT 2

REGION 3

MID-HUDSON REGION

BOARDS OF COOPERATIVE EDUCATIONAL SERVICES

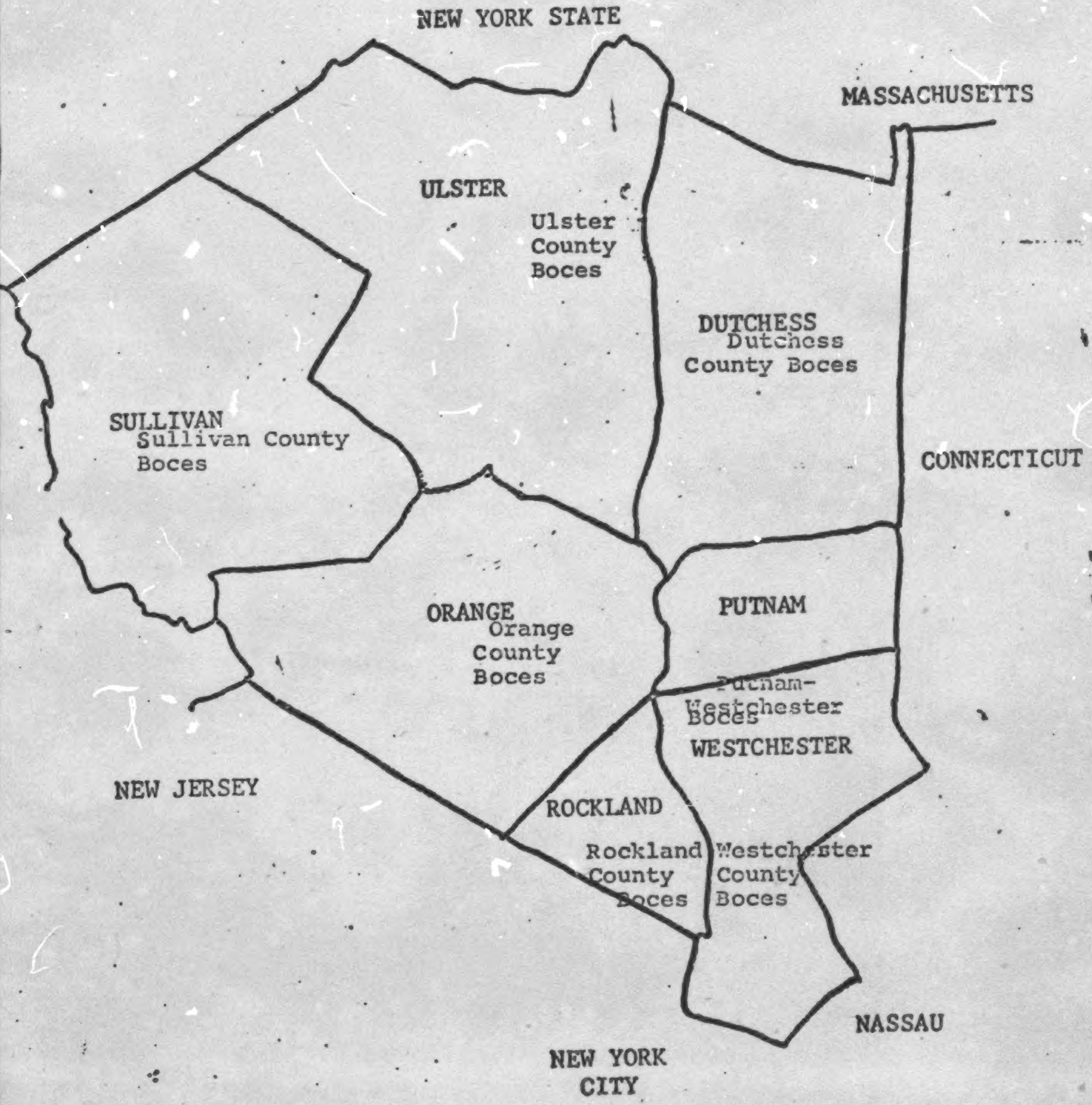
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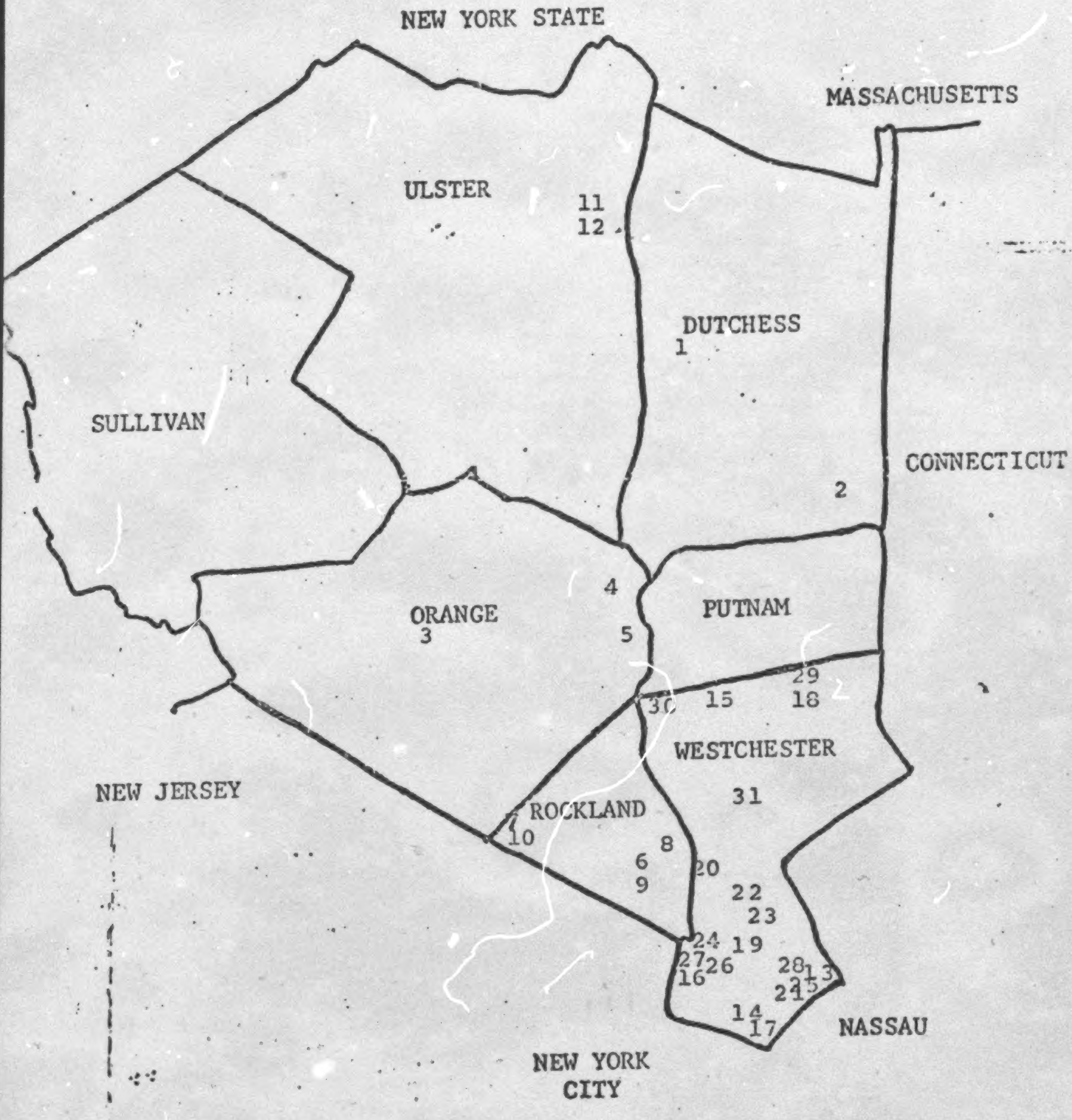
EXHIBIT 3

REGION 3

MID-HUDSON REGION

PRIVATE VOCATIONAL SCHOOLS - Secondary Level

NON-PUBLIC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KEY attached

SECONDARY NON-PUBLIC SCHOOLS

DUTCHESS

1. Our Lady of Lordes High School
2. Trinity -Pawling

ORANGE

3. John S. Burke Catholic High School
4. Mt. St. Mary Academy
5. New York Military Academy

ROCKLAND

6. Albertus Magnus High School
7. The Anderson School
8. The Rockland Country Day School
9. Rosary Academy
10. St. Mary's Villa Academy

ULSTER

11. John A. Coleman High School
12. Ulster Academy

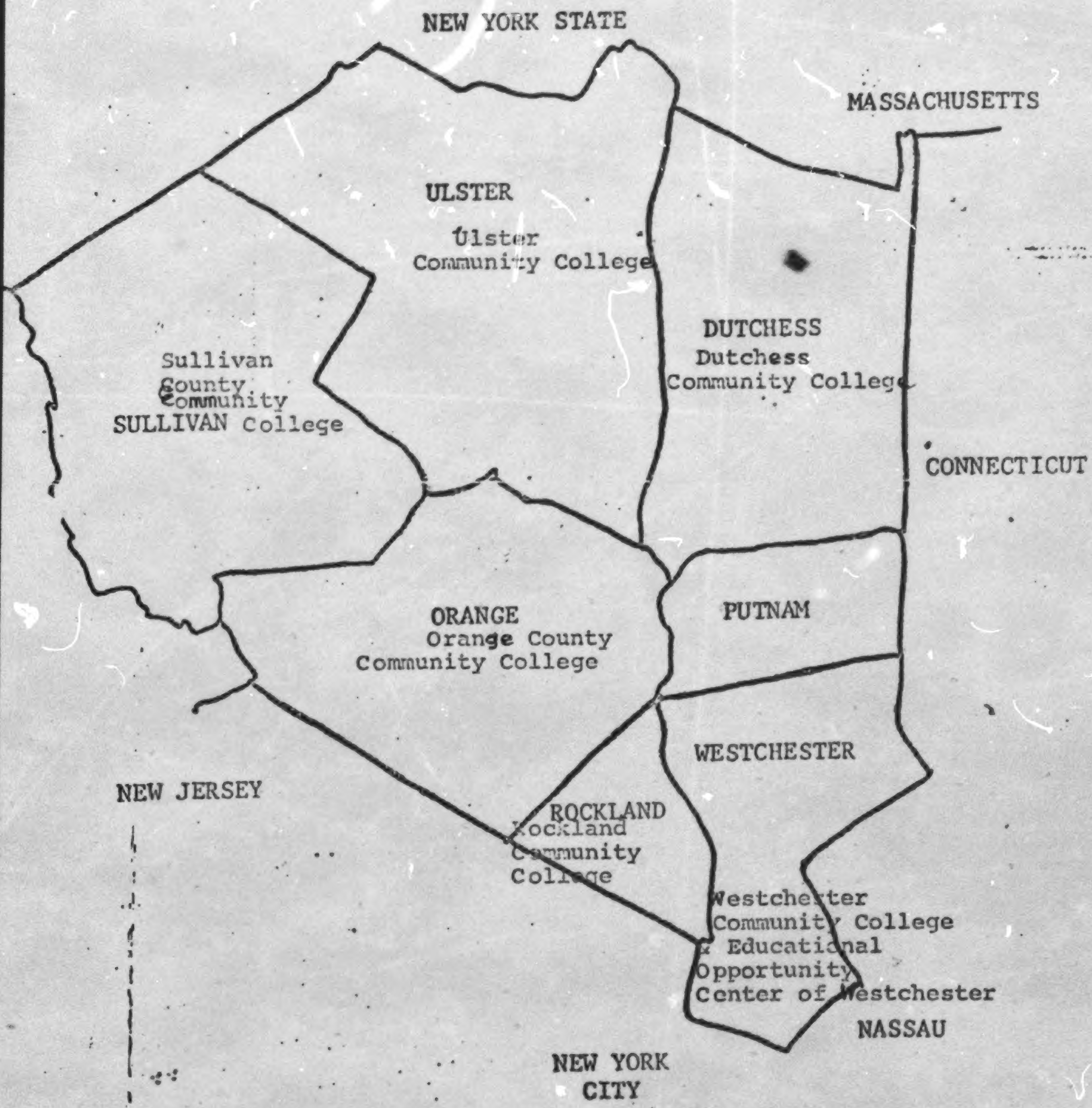
WESTCHESTER

13. Academy of the Resurrection
14. Blessed Sacrement High School
15. Franciscan High School
16. The Halsted School
17. Iona Prep. School
18. John F. Kennedy High School
19. Maria Regina High School
20. Marymount Secondary School
21. New Rochelle Academy
22. New York School for the Deaf
23. Our Lady of Good Counsel Academy
24. Our Lady of Victory Academy
25. Rye Country Day School
26. Scared Heart High School
27. St. Clare Academy
28. St. Gabriel High School
29 St. LaSalle
30. St. Mary's School
31. Scarborough School

EXHIBIT 4

REGION 3
MID-HUDSON REGION

COMMUNITY COLLEGES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PUTNAM
WESTCHESTER
NEW JERSEY
ROCKLAND
Rockland Community College
Westchester Community College & Educational Opportunity Center of Westchester
NASSAU
NEW YORK CITY

EXHIBIT 5

MID-HUDSON REGION - Region 3

Private Post-Secondary Institutions
(Degree Granting)

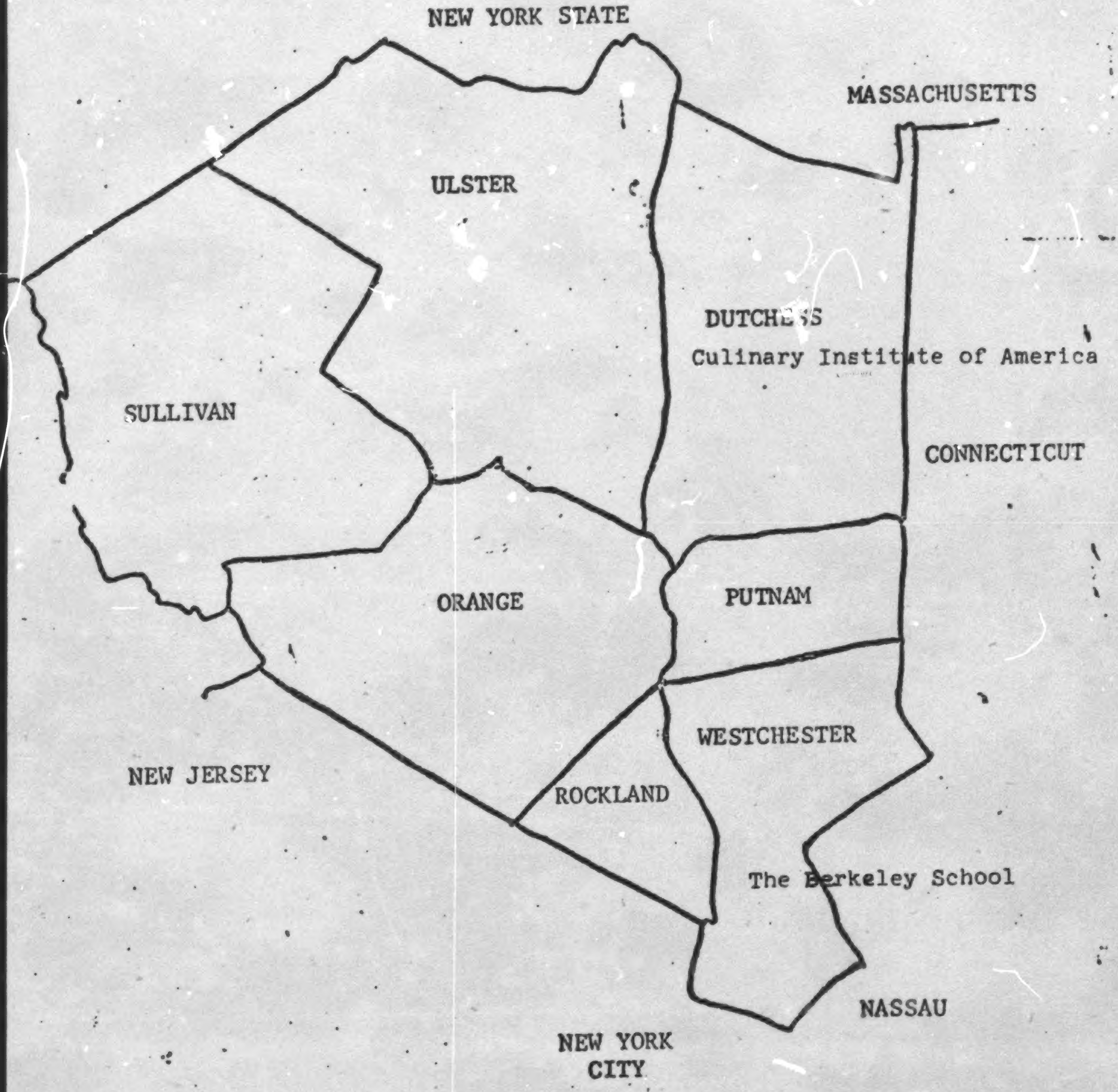
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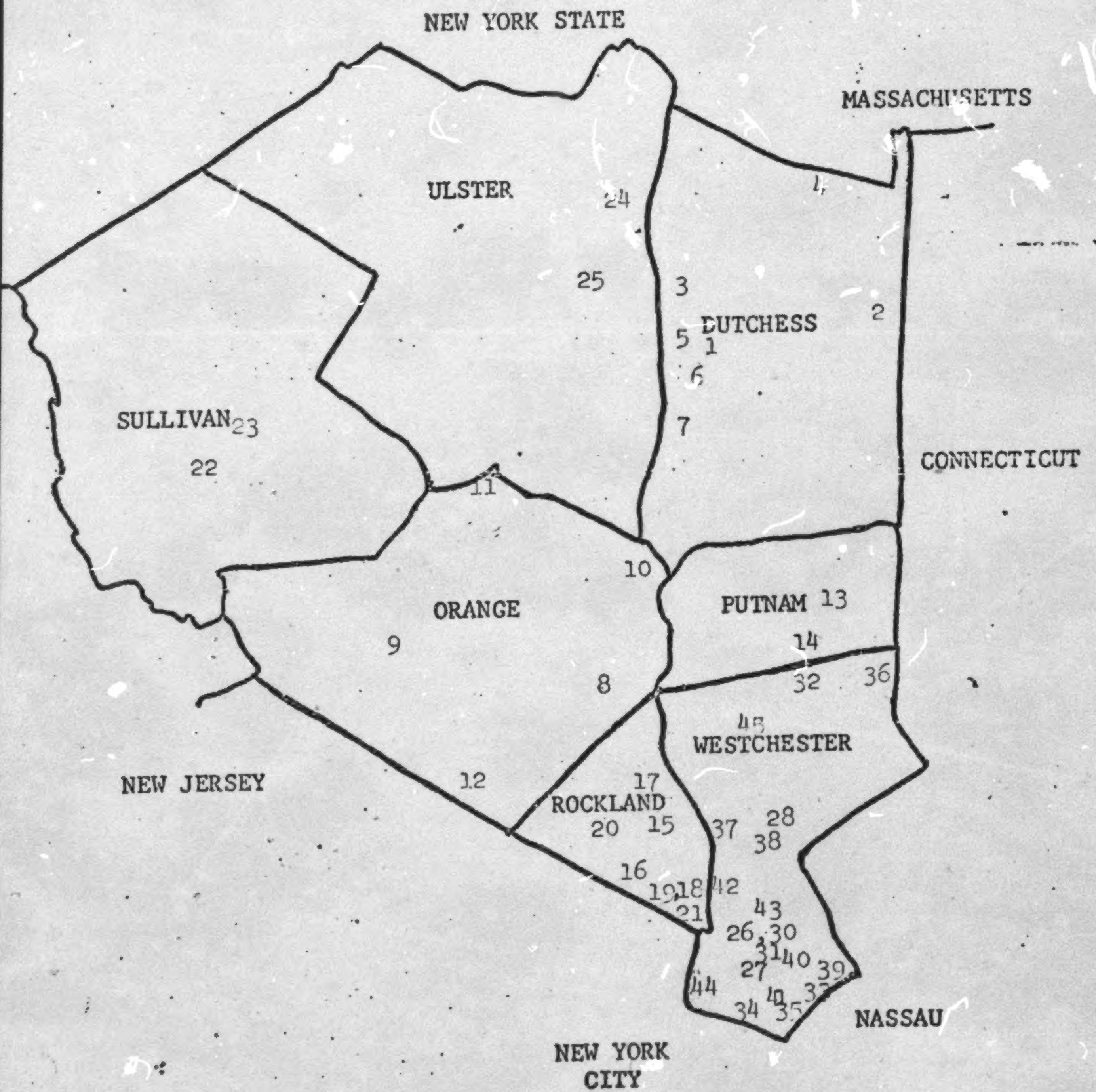
EXHIBIT C

MID-HUDSON REGION

SECONDARY SCHOOL ADULT EDUCATION PROGRAMS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SECONDARY SCHOOL ADULT EDUCATION PROGRAMS

DUTCHESS

1. Arlington Adult Program
2. Dover High School
3. Hyde Park Central School District
4. Pine Plains Adult Education Program
5. Poughkeepsie Adult Education Program
6. Spackenkill Union Free School District
7. Wappingers Continuing Education

ORANGE

8. Town of Highlands Adult Education Program
9. Middletown School District
10. Newburgh Adult Education Program
11. Pine Bush Adult Education Program
12. Warwick Valley Adult Education Program

PUTNAM

13. Carmel Continuing Adult Education
14. Mahopac Adult School

ROCKLAND

15. East Ramapo Continuing Education Program
16. Nanuet Adult Continuing Education
17. North Rockland Adult School
18. Nyack Adult Continuing Education
19. Pearl River Adult Education Program
20. Ramapo Central Continuing Adult Program
21. South Orangetown Continuing Adult Program

SULLIVAN

22. Monticello Central School District
23. Tri-Valley Central School at Grahamsville

ULSTER

24. Kingston Continuing Education Program
25. New Paltz Continuing Education Program

WESTCHESTER

26. Ardsley Continuing Education
27. Bronxville Adult School
28. Chappaqua Continuing Education Program
29. Eastchester School for Continuing Education
30 Edgemont Adult School
31. Harrison School of Continuing Education
32. Katonah-Lewisboro Continuing Education
33. Mamaroneck Center for Continuing Education
34. Mount Vernon Adult Continuing Education

WESTCHESTER Continued

35. New Rochelle Adult Education
36. North Salem Adult School
37. Ossining Adult Continuing Ed.
38. Pleasantville Adult School
39. Port Chester Adult Education
40. Scarsdale Adult School
41. Something on Sundays (Pelham School District)
42. Tarrytown Adult Ed. Program
43. White Plains Adult Ed. Center
44. Yonkers School for Adult Ed.
45. Yorktown Continuing Adult Education Program

EXHIBIT 7

Occupational Education Plan - 1980

PROGRAM AREAS BY "CLUSTERS"
EXPANDED LIST

1. AGRICULTURE ED/HOME ECONOMICS ED
    - Pre-vocational (introduction to ag.)
    - Agriculture Production
        - Business
        - Mechanics
        - Products
    - Ornamental Horticulture (floral design, greenhouse occupations, landscaping, turf management)
    - Conservation
        - Forestry
        - Environmental pollution problems
        - Fisheries & Wildlife
        - Agricultural Science
    - Pre-vocational Home Economics (becoming employable, etc.)
    - Clothing Management
    - Food management & Services
    - Home Furnishings
    - Hotel/Motel Housekeeping Services
    - Natural Resource Conservation Technology
    - Natural Science Technologies
    - Agriculture Technologies
    - Forestry & Wildlife Technologies
    - Marine & Oceanographic Technologies
    - Laboratory Technologies
    - Environmental Health Technologies
    - Food Service Technologies
    - Home Economic Technologies

2. DISTRIBUTIVE EDUCATION
    - Pre-vocational (exploring marketing, etc.)
    - Advertising Services
    - Apparel & Accessories
    - Automative (service station management)
    - Finance & Credit (banking)
    - Food Distribution (supermarket, sales)
    - General Merchandising & Sales
        - Distribution
        - Marketing
        - Sales
        - Direct Selling
        - Retailing
        - Wholesaling
    - Insurance/Real Estate
    - Recreation & Tourism
    - Transportation & Service
        - Traffic
        - Distribution Management
    - Hotel & Motel Operations

Banking & Finance Technologies
Hotel & Restaurant & Management Technologies
Transportation & Public Utility Technologies

3. HEALTH EDUCATION
Pre-vocational
Nurse Aide Services
Home Health Assisting
Medical Lab. Assisting
Dental Assisting
Dental Hygiene
Nursing - Practical
Medical Therapy Assisting
Mental Health Assisting
Medical Supply Assisting
Community Health Aide
Medical Emergency Assisting
Mortuary Science

Health Services Assisting Technologies
Dental Assistant Technology
Dental Hygiene Technology
Medical & Biological Lab. Assistant Technology
Animal Lab. Assisting Technology
Radiologic Technologies (X-ray, etc.)
Nursing R.N. (Associate Degree)
Occupational Therapy Technologies
Surgical Technologies
Optical Technologies
Medical Record Technologies
Medical Assistant & Medical Office Assistant Technologies
Inhalation Therapy Technologies
Psychiatric Technologies
Mental Health Technologies
Electro Diagnostic Technologies
Physical Therapy Technologies

4. CLERICAL/OFFICE/SECRETARIAL
Pre-vocational (exploring Bus.Ed., Bus. Math.)
Clerical Practice
Office Practice
Office Machine Operations
Filing
Office Reproduction Equipment Operation
Machine Transcription
Clerk/Typist
Typewriting
Switchboard Operation
Civil Servie In-service
Stenographic, Secretarial & Related Occupations
Library Aides
Clerks

Secretarial Technologies

5. DATA PROCESSING/ACCOUNTING/BOOKKEEPING & BUSINESS MANAGEMENT
   - Bookkeeping & Accounting
   - Machine Bookkeeping
   - Bank Teller
   - Record-Keeping
   - Income Tax Preparation
   - Data Processing (Operators, programmers)
   - Computer Operators
   - Keypunch Operations
   - Unit Record Equipment Operations
   - Supervisory & Administrative Management

   - Accounting Technologies
   - Banking & Finance Technologies
   - Business & Commerce Technologies
   - Data Processing Technologies
   - Keypunch & Other Input Preparation Technologies
   - Computer Operator & Peripheral Equipment Operation Technologies

6. GRAPHICS/COMMUNICATIONS
   - Commercial Art Occupations (apparel & fashion included)
   - Photography Occupations (commercial & fashion)
   - Graphic Arts (printing, offset, lithography, compositor)
   - Audio-visual
   - Telecommunications

   - Photography Technology
   - Communications & Broadcasting Technology (TV/Radio,Newspapers)
   - Printing & Lithography Technology
   - Applied Arts & Graphic Arts Technology
   - Fine Arts Technology (incl. advertising design)

7. INDUSTRIAL/TECHNICAL
   - Pre-vocational
   - Appliance Repair
   - Automotive Services
     - Auto Mechanics
     - Body & Fender
     - Diesel
     - Small Engine Mechanics & Repair
   - Electrical Occupations (Residential & Commercial)
   - Electrical Construction & Maintenance
   - Electronics
   - Aviation Operations (& maintenance)
   - Custodial Service
   - Maritime Occupations (boat building)

   - Automotive/Diesel & Welding Technologies
   - Chemical Technology (incl. plastics)
   - Mechanical & Engineering Technologies
   - Aeronautical & Aviation Technologies
   - Electromechanical Technologies
   - Industrial Technologies

8. CONSTRUCTION/TECHNICAL
   - Drafting
     - Mechanical
     - Industrial
     - Architectural
     - Electrical
     - Blueprint Reading
   - Construction & Maintenance
     - Building & Plastering
     - Millwork/cabinet making
     - Plumbing & Heating
     - Masonry
     - Painting/Decorating
     - Carpentry
     - Home Building
     - Glazier
     - Linoleum/Tile/Carpetlaying
     - Elevator Maintenance
   - Air Conditioning/Refrigeration & Heating & Oil Burner Service
   - Machine & Metal Occupations (Shop, Tool & Foundary)

   - Architectural (drafting) Technologies
   - Civil Technologies(Surveying & Photogrammetry, etc.)
   - Instrumentation Technologies
   - Mechanical Technologies
   - Nuclear Technologies
   - Construction & Building Technologies

9. HUMAN SERVICES & PUBLIC SERVICE RELATED
   - Personal Services (barbering/cosmetology)
   - Law Enforcement (police, correction aide, protection services)
   - Social Service Paraprofessionals (community, social, & human service
   - Educational Paraprofessionals (Teacher aides, etc.)
   - Public Service Occupations (Firemen, School Bus Driver, etc.)
   - Quantity Food Occupations (meat cutting, waiter, hostess, etc.)
   - Textile Production (dressmaking, upholstering, etc.)
   - Other (clock & watch repair, vending machines, instrument maintenence & repair)

   - Public Service Technologies
   - Education Technologies (child care, nursery ed. 2-year training)
   - Library Assistant Technologies
   - Police, Law Enforcement & Correction Technologies
   - Recreation & Social Work Related Technologies
   - Fire Control Technologies
   - Public Service Administration & Management Technologies
   - Personal Service Technologies

EXHIBIT 8

Programs in Two-Year Colleges

Programs	Dutchess		Orange		Rockland		Sullivan		Ulster		Westchester	
	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr
BUSINESS/COMMERCE TECHNOLOGY												
Accounting Technology	X		X	X	X				X		X	
Banking & Finance Technology							X	X			X	
Banking, Insurance, Real Estate					X							
Business Administration	X		X		X		X		X			
Business & Commerce Technology General										X		
Business & Industrial Management Technology			X									
Hotel & Restaurant Management Technology							X					
Marketing, Distribution, Purchasing					X						X	
Office Management							X					
Retail Business Management	X		X	X					X			
COMMUNICATIONS/MEDIA TECHNOLOGY												
Advertising					X							
Commercial Art	X						X					
Communications & Broadcasting Technology	X											
Graphic Arts & Advertising					X							
DATA PROCESSING TECHNOLOGY												
Data Processing Technology General	X	X	X	X	X	X			X		X	
Machines Operations					X							
Programing & Systems					X							

Continued

Programs	Dutchess 2Yr	Dutchess 1Yr	Orange 2Yr	Orange 1Yr	Rockland 2Yr	Rockland 1Yr	Sullivan 2Yr	Sullivan 1Yr	Ulster 2Yr	Ulster 1Yr	Westchester 2Yr	Westchester 1Yr
HEALTH SERVICES & PARAMEDICAL TECHNOLOGY												
Certified Laboratory Assisting	X	X										
Dental Assistant Technology	X					X						
Dental Laboratory Technology	X											
Drug Abuse Technology							X					
Electron Microscope Technology			X									
Environmental Health							X					
Inhalation Therapy Technology											X	
Medical Office Assistant Technology	X										X	
Medical or Biological Laboratory Assistant Technology			X					X	X		X	
Nurses Aide						X						
Nursing, R.N. (Less than 4-yr. program)	X		X		X				X			
Orthotics Assistant Technology	X											
Psychiatric Technology (Including Mental Health Aide)	X						X					
Public Health Technology					X		X					
Radiologic Technology											X	
MECHANICAL/ENGINEERING TECHNOLOGY												
Architectural Drafting Technology	X		X	X				X				
Chemical Technology											X	
Civil Technology (Surveying, Photo Grammetry, etc.)				X			X			X	X	
Construction & Building Technology												X
Electrical Technology	X		X		X				X		X	
Electromechanical Technology	X											

Continued

Programs	Dutchess		Orange		Rockland		Sullivan		Ulster		Westchester	
	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr
Electronics & Machine Technology										X		
Engineering Drafting				X								X
Engineering Science	X		X		X		X		X		X	
Machinist Training												X
Manufacturing Practices (Machine Operator)				X								
Mechanical Design Technology & Drafting	X	X								X	X	
NATURAL SCIENCE TECHNOLOGY												
Air & Water Pollution Control								X	X			
Biological Technology							X					
Dietetic Technology - Nutrition Care											X	
Environmental Technology									X			
Food Service Technology											X	
Landscape Development & Maintenance										X		
Natural Resources Conservation	X											
PUBLIC SERVICE RELATED TECHNOLOGY												
Child Care	X											
Corrections Supervision				X								
Correction Technology			X	X							X	
Criminal Justice									X		X	
Fire Control Technology					X						X	
Human Services					X				X		X	
Law Enforcement Technology				X								
Nursery Education	X											
Police Technology	X		X		X							
Recreation & Social Work Related Technology	X		X						X		X	

Continued

Programs	Dutchess		Orange		Rockland		Sullivan		Ulster		Westchester	
	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr	2Yr	1Yr
SECRETARIAL TECHNOLOGY												
Office Practices						X		X				
Secretarial Executive									X			
Secretarial Technology General	X		X		X		X			X	X	
Stenograph				X								
Typewriting				X						X*		

*Commerical
Legal
Medical

VI. DEFINITIONS

VI. Definitions

Secondary Occupational Education

Occupational education programs serving students in grades 9-12.

Postsecondary Occupational Education

Occupational education programs leading to the associate degree.

Adult Occupational Education

Occupational education programs serving persons of any age who have completed or left high school, in which training is offered below the associate degree level, whether at BOCES, public schools, 2-year colleges, educational opportunity centers, or other agencies.

Disadvantaged Occupational Education Student

A student who requires special assistance or a modified course of study in the occupational education program in which he or she is enrolled, because of academic, socioeconomic or cultural deprivation.

Handicapped Occupational Education Student

A student who requires special assistance or a modified course of study in an occupational education program because of mental retardation, hearing difficulty, deafness, speech impairment, visual handicap, serious emotional disturbance, crippling or other health impairment.

Mission-

A concise statement of the fundamental purpose of an organization or unit.

Goal

A goal is a continuing purpose that provides a sense of direction through time. A goal is general in scope and may be thought of as providing a direction or aim for schools and colleges to work toward.

Needs

The discrepancy between desired and actual results.

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